BLM

WESTERN

Proposed Southline Transmission Line Project

Draft Environmental Impact Statement and Draft Resource Management Plan Amendment

Volume 3 of 4

Western AREA POWER ADMINISTRATION

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

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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 A

CONSTRUCTION WORKFORCE, NEW BUILD AND UPGRADE SECTIONS

Table A-1. Anticipated Construction Workforce and Equipment, New Build

Activity	Equipment		Crew
ROW Survey	1 helicopter 2 all-terrain vehicles (ATVs)	2 pickup trucks	6
Geotechnical Investigations	1 (2-ton) drill truck 1 ATV	1 pickup truck	4
Access Road Construction	2 bulldozers (D-6 or D-8) 2 motor graders	2 pickup trucks 2 water trucks	8
Foundation Installation	3 augers 2 wagon drills 2 flatbed trucks w/ booms 2 (15-ton) hydro cranes 1 batch plant 4 concrete trucks 1 water truck	1 bulldozer (D-6) 1 front-end loader 2 dump trucks 2 (2-ton) trucks 3 pickup trucks 1 carry-all	32
Laydown Yard / Receiving	2 (40-ton) cranes 4 forklifts	2 pickup trucks	8
Structure Hauling	6 flatbed trailers 2 boom trucks	1 pickup truck 2 forklifts	10
Structure Assembly	3 (40-ton) cranes 3 carry-alls	3 (2-ton) trucks 3 pickup trucks	24
Structure Erection	2 (100-ton) cranes 2 boom trucks	2 (2-ton) trucks 2 pickup trucks	20
Wire Stringing	1 light helicopter 3 drum pullers 3 double-wheeled tensioners 6 wire reel trailers 2 D-8 Cats with sag winches 2 splicing trucks	2 diesel tractors 2 haul trailers 2 (30-ton) cranes 6 boom trucks 4 (2-ton) trucks 6 pickup trucks	40
Road/ROW Restoration	1 bulldozer (D-6 or D-8) 1 front-end loader with bucket 1 tractor with seeding equipment 1 motor grader	1 pickup truck 1 dump truck 1 water truck	8
Clean-up	1 flatbed truck with bucket	2 pickup trucks	6

Table A-2. Anticipated Construction Workforce and Equipment, Upgrade

Activity	Equipment		Crew
ROW Survey	1 helicopter 2 all-terrain vehicles (ATVs)	2 pickup trucks	6
Geotechnical Investigations	1 (2-ton) drill truck 1 ATV	1 pickup truck	4
Access Road Construction	1 bulldozer (D-6 or D-8) 1 motor grader	1 pickup truck 1 water truck	4
Foundation Installation	3 augers 2 wagon drills 2 flatbed trucks w/ booms 2 (15-ton) hydro cranes 1 batch plant 4 concrete trucks 1 water truck	1 bulldozer (D-6) 1 front-end loader 2 dump trucks 2 (2-ton) trucks 3 pickup trucks 1 carry-all	32
Laydown Yard / Receiving	2 (40-ton) cranes 4 forklifts	2 pickup trucks	8

Table A-2. Anticipated Construction Workforce and Equipment, Upgrade (Continued)

Activity	Equipment		Crew
Structure Hauling	6 flatbed trailers 2 boom trucks	1 pickup truck 2 forklifts	10
Structure Erection	2 (100-ton) cranes 2 boom trucks	2 (2-ton) trucks 2 pickup trucks	20
Wire Stringing	1 light helicopter 3 drum pullers 3 double-wheeled tensioners 6 wire reel trailers 2 D-8 Cats with sag winches 2 splicing trucks	2 diesel tractors 2 haul trailers 2 (30-ton) cranes 6 boom trucks 4 (2-ton) trucks 6 pickup trucks	40
Road/ROW Restoration	1 bulldozer (D-6 or D-8) 1 front-end loader with bucket 1 tractor with seeding equipment 1 motor grader	1 pickup truck 1 dump truck 1 water truck	8
Clean-up	1 flatbed truck with bucket	2 pickup trucks	6

Appendix B

SUPPLEMENTAL AIR QUALITY INFORMATION

SUPPLEMENTAL AIR QUALITY INFORMATION

Laws, Ordinances, Regulations, and Standards

The following section provides a more inclusive summary of Federal, State, and local laws, regulations, and standards that govern activities that could affect air quality resources across the air quality analysis area. This section is meant to supplement the discussion included in the air quality section of chapter 3.

Federal

PREVENTION OF SIGNIFICANT DETERIORATION AND CLASS I AND II AREAS

The maximum allowable PSD increments over baseline, significant impact levels (SILs), and monitoring de minimis concentrations are summarized in table B-1.

Table B-1. Prevention of Significant Deterioration of Air Quality Increments, Significant Impact Levels, and Monitoring of de Minimis Concentrations

Pollutant	Averaging Time	PSD Increments Class I (µg/m^3)	PSD Increments Class II (µg/m^3)	SILs Class I (µg/m^3)	SILs Class II (µg/m^3)	Monitoring de Minimis Concentrations (µg/m^3)
PM_{10}	Annual	4	17	0.16	1	NA
	24-hour	8	30	0.32	5	10
SO_2	Annual	2	20	0.08	1	NA
	24-hour	5	91	0.2	5	13
	3-hour	25	512	1	25	NA
NO_2	Annual	2.5	25	0.1	1	14
CO	8-hour	NA	NA	NA	500	575
	1-hour	NA	NA	NA	2,000	NA

Sources: 40 CFR 52.21(c), *61 Federal Register* 38249, 40 CFR 51.165(b)(2), 40 CFR 52.21(i)(5)(i).
Notes: NA = Not applicable; µg/m^3 = micrograms per cubic meter.

In 1999, the EPA announced an effort to improve air quality and visibility in 156 national parks and wilderness areas designated as Class I, known as the Regional Haze Rule (EPA 1999). Regional haze reduces long-range visibility over a wide region. Section 169A of the CAA sets forth a national goal for visibility. States are required by the rule to demonstrate reasonable progress towards the "prevention of any future, and the remedying of any existing, impairment in Class I areas which impairment results from manmade air pollution."

State and Local Regulations

DOÑA ANA COUNTY

A countywide ordinance (Ordinance 194-2000 on Erosion Control Regulations (Doña Ana County 2000)) would apply to the proposed Project and alternatives and requires an erosion control plan approved by the County planning director to minimize the creation or aggravation of erosive forces. Erosion control measures must be detailed in the plan and include short-term (during construction) and long-term (during

operations) control measures as specified in the ordinance. Short-term control measures include regularly scheduled wet suppression, dust suppressants applied in amounts and rates recommended by the manufacturer and maintained as recommended by the manufacturer, upwind temporary windbreaks, starting of construction upwind and stabilizing of disturbed areas before disturbing additional areas, and/or stopping of active operations during high wind periods. Long-term control measures include site stabilization using dust suppressants applied in amounts and rates recommended by the manufacturer and maintained as recommended by the manufacturer, reseeding using native grasses, xeriscaping, tree planting, and/or permanent perimeter and interior fencing.

LUNA COUNTY

A countywide ordinance (Ordinance 75 on Buildings (Luna County 2010)) applies to the proposed Project and alternatives and requires a plan approved by the officer to prevent soil, sand, dust, building materials, construction waste, and other materials from being blown by the wind from the land.

COCHISE COUNTY

In Cochise County, no additional County-specific air quality regulations apply. A countywide ordinance (Ordinance 00-030 on Land Clearing (Cochise County 2000)) associated with a permitting program applies to the proposed Project and alternatives. Any activity that includes the clearing of more than 1 acre of land is required to have a clearing permit from the County. Controls during construction include dust and erosion control measures during clearing and until revegetation or stabilization has taken place. Dust shall be minimized through the application of generally acceptable dust suppressants and erosion shall be minimized through the application of acceptable BMPs. There are no concrete batch plant specific regulations that apply to Cochise County.

PIMA COUNTY

Pima County has been delegated authority to maintain and operate an air quality control program under a state implementation plan (SIP). The air quality regulations in Pima County are codified in the Pima County Air Quality Control District Code of Regulations, Title 17, Air Quality Control (Pima County 2013). The Pima County air quality standards are the same as the AAAQS established by the ADEQ. Specific permitting and emission limitations regulations apply for Class I areas and nonattainment areas.

The County has dust control regulations associated with a permitting program. A fugitive dust activity permit is required when conducting land stripping and/or earth moving over 1 acre, trenching over 300 feet, or road construction over 50 feet. A visible standard of 20 percent applies to opacity emissions from a nonpoint source. Until the area becomes permanently stabilized, dust controls during construction and operations are required. Those dust control methods include applying adequate amount of a dust suppressant to the affected area.

PINAL COUNTY

The air quality regulations in Pinal County are codified in the Pinal County Air Quality Control District Code of Regulations. The Pinal County air quality standards are similar to the AAAQS established by the ADEQ. The County also has dust control regulations, associated with a permitting program (Pinal County 2010). A dust registration is required when conducting land stripping and/or earth moving over 0.1 acre. A visible standard of 20 percent applies to opacity emissions. Controls during construction include watering, dust suppressants, wind barriers, covering haul vehicles, reducing speed limits, applying a gravel pad, dislodging debris from trucks prior to leaving the work site, shelter storage piles, altering loading procedures, or other applicable means.

Climate and Meteorology

The following section provides a more inclusive summary of the climate and meteorology across the air quality analysis area. This section is meant to supplement the discussion included in the air quality section of chapter 3.

New Mexico

During the summer months, individual daytime temperatures quite often exceed 100 °F at elevations below 5,000 feet, but the average monthly maximum temperatures in July, the warmest month, range from slightly above 90 °F at lower elevations to the upper 70s at high elevations. Warmest days quite often occur in June before the thunderstorm season sets in. In July and August, afternoon convective storms tend to decrease solar insolation, lowering temperatures before they reach their potential daily high. The highest temperatures of record in New Mexico are 116 °F at Orogrande on July 14, 1934, and at Artesia on June 29, 1918. A preponderance of clear skies and low relative humidity permit rapid cooling by radiation from the earth after sundown. Consequently, nights are usually comfortable in summer. The average range between daily high and low temperatures is from 25 °F to 35 °F.

In January, the coldest month, average daytime temperatures range from the middle 50s in the southern and central valleys to the middle 30s in the higher elevations of the north. Minimum temperatures below freezing are common in all sections of the state during the winter, but subzero temperatures are rare except in the mountains. The lowest temperature recorded at regular observing stations in the state was −50 °F at Gavilan on February 1, 1951. An unofficial low temperature of −57 °F at Ciniza on January 13, 1963, was widely reported by the press.

The freeze-free season ranges from more than 200 days in the southern valleys to less than 80 days in the northern mountains, where some high mountain valleys have freeze in summer months.

Average annual precipitation ranges from less than 10 inches over much of the southern desert and the Rio Grande and San Juan Valleys to more than 20 inches at higher elevations in the State. A wide variation in annual totals is characteristic of arid and semiarid climates, as illustrated by annual extremes of 2.95 and 33.94 inches at Carlsbad over a period of more than 71 years.

Summer rains fall almost entirely during brief, but frequently intense thunderstorms. The general southeasterly circulation from the Gulf of Mexico brings moisture for these storms into the State, and strong surface heating combined with orographic lifting as the air moves over higher terrain causes air currents and condensations. July and August are the rainiest months over most of the state, with from 30 to 40 percent of the year's total moisture falling at that time. The San Juan Valley area is least affected by this summer circulation, receiving about 25 percent of its annual rainfall in July and August. During the warmest 6 months of the year, May through October, total precipitation averages from 60 percent of the annual total in the Northwestern Plateau to 80 percent of the annual total in the eastern plains.

Winter precipitation is caused mainly by frontal activity associated with the general movement of Pacific Ocean storms across the country from west to east. As these storms move inland, much of the moisture is precipitated over the coastal and inland mountain ranges of California, Nevada, Arizona, and Utah. Much of the remaining moisture falls on the western slope of the Continental Divide and over northern and high central mountain ranges. Winter is the driest season in New Mexico except for the portion west of the Continental Divide. This dryness is most noticeable in the Central Valley and on eastern slopes of the mountains.

Much of the winter precipitation falls as snow in the mountain areas, but it may occur as either rain or snow in the valleys. Average annual snowfall ranges from about 3 inches at the Southern Desert and Southeastern Plains stations to well over 100 inches at Northern Mountain stations. It may exceed 300 inches in the highest mountains of the north.

Plentiful sunshine occurs in New Mexico, with from 75 to 80 percent of the possible sunshine being received. In winter, this is particularly noticeable with from 70 to 75 percent of the possible sunshine being received. It is not uncommon for as much as 90 percent of the possible sunshine to occur in November and in some of the spring months. The average number of hours of annual sunshine ranges from near 3,700 hours in the southwest to 2,800 in the north-central portions.

Average relative humidity is lower in the valleys but higher in the mountains because of the lower mountain temperatures. Relative humidity ranges from an average of near 65 percent around sunrise to near 30 percent in mid-afternoon; however, afternoon humidity in warmer months is often less than 20 percent and occasionally may go as low as 4 percent. The low relative humidity during periods of extreme temperatures eases the effect of summer and winter temperatures.

Wind speeds over the State are usually moderate, although relatively strong winds often accompany occasional frontal activity during late winter and spring months and sometimes occur just in advance of thunderstorms. Frontal winds may exceed 30 miles per hour (mph) for several hours and reach peak speeds of more than 50 mph. Spring is the windy season. Blowing dust and serious soil erosion of unprotected fields may be a problem during dry spells. Winds are generally stronger in the eastern plains than in other parts of the State. Winds generally predominate from the southeast in summer and from the west in winter, but local surface wind directions will vary greatly because of local topography and mountain and valley breezes.

Potential evaporation in New Mexico is much greater than average annual precipitation. Evaporation from a Class A pan ranges from near 56 inches in the north-central mountains to more than 110 inches in southeastern valleys. During the warm months, May through October, evaporation ranges from near 41 inches in the north-central to 73 inches in the southeast portions of the State.

Table B-2 presents climate data for Lordsburg and Las Cruces, New Mexico.

Table B-2. Climate Conditions in the New Mexico Proposed Project and Alternatives Area

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Lordsburg, New Mexico [a]													
Average max. temperature (°F)	59.1	63.5	70.4	79.1	87.7	96.8	96.8	94.2	89.5	79.9	67.6	58.6	78.6
Average min. temperature (°F)	25.5	28	33.2	39.6	47.8	58.1	64.6	62.9	56.2	43.6	31.6	25.5	43.1
Average total precipitation (inches)	0.81	0.71	0.63	0.27	0.23	0.42	1.87	1.94	1.22	0.93	0.59	0.88	10.49
Average total snowfall (inches)	1.2	1	0.6	0.1	0	0	0	0	0	0	0.3	1.3	4.5

Table B-2. Climate Conditions in the New Mexico Proposed Project and Alternatives Area (Continued)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Las Cruces, New Mexico [b]													
Average max. Temperature (°F)	59.7	64.3	71.1	80.1	87.3	96.5	95.4	94.7	91.1	81.4	67.8	59.2	79.1
Average min. temperature (°F)	28.7	29.5	36.7	45.1	51.5	61.8	66.9	65.5	58.3	46.8	33.3	28.4	46.1
Average total precipitation (inches)	0.49	0.41	0.17	0.12	0.25	0.5	1.12	1.16	0.68	0.91	0.19	0.4	6.39
Average total snowfall (inches)	1.6	1.5	0	0.1	0	0	0	0	0	0	0	0.8	3.9

Notes:
Avg. = average
Max. = maximum
Min. = minimum
[a] Source: Western Regional Climate Center, 2011a, Station ID 295079.
[b] Source: Western Regional Climate Center, 2011b, Station ID 294799.

Arizona

Cold air masses from Canada sometimes penetrate into the State, bringing temperatures well below zero in the high plateau and mountainous regions of central and northern Arizona. The lowest readings can dip to 35 °F below zero. High temperatures are common throughout the summer months at the lower elevations. Temperatures higher than 125 °F have been observed in the desert area. Great extremes occur between day and night temperatures throughout Arizona. The daily range between minimum and maximum temperatures sometimes runs as much as 50 °F to 60 °F during the drier portions of the year. During winter months, daytime temperatures may average 70 °F, with night temperatures often falling to freezing of slightly below in the lower desert valleys. In the summer, the pine-clad forests in the central part of the State may have afternoon temperatures of 80 °F, while night temperatures drop to 35 °F or 40 °F.

Precipitation throughout Arizona is governed to a great extent by elevation and the season of the year. From November through March, storm systems from the Pacific Ocean cross the State. These winter storms occur frequently in the higher mountains of the central and northern parts of the State and sometimes bring heavy snows. Snow accumulation may reach depths of 100 inches or more during the winter. The gradual melting of this snow during the spring serves to maintain a supply of water in the main rivers of the State. Reservoirs on these streams supply water to the desert areas in the lower Salt River valley and the lower Gila River valley areas, which are extensively farmed.

Summer rainfall begins early in July and usually lasts until mid-September. Moisture-bearing winds sweep into Arizona from the southeast, with their source region in the Gulf of Mexico. Another important source of moisture for southern Arizona is the Gulf of California. Summer rains occur in the form of thunderstorms, which result largely from excessive heating of the ground and the lifting of moisture-laden air along main mountain ranges. Thus, the heaviest thunderstorms are usually found in mountainous regions of the central and southeastern portions of Arizona. These thunderstorms are often accompanied by strong winds and brief periods of blowing dust prior to the onset of rain. Hail occurs rather infrequently.

The average number of days with measurable precipitation per year varies from near 70 days in the Flagstaff area to 15 at Yuma. A large portion of Arizona is classed as semiarid and long periods often occur with little or no precipitation. The air is generally dry and clear, with low relative humidity and a high percentage of sunshine. April, May, and June are the months with the greatest number of clear days, while July and August, as well as December, January, and February have the cloudiest weather and lowest percent of possible sunshine. Humidity, while low compared with most other States, are higher throughout much of Arizona during July and August, which is the thunderstorm season. Annual average humidity values, based on four readings per day, range from 55 percent at Flagstaff to around 33 percent at Yuma. Yearly averages of percent of possible sunshine range from 86 to 92 percent. Evaporation rates in Arizona are high because of high temperatures, the dryness of the air, and the high percentage of sunshine. Mean annual lake evaporation varies from about 80 inches in the southwestern part of the State to about 50 inches in the northeast. Phoenix averages about 72 inches and Tucson 70 inches per year.

Table B-3 presents climate data for Tucson and Benson, Arizona.

Table B-3. Climate Conditions in the Arizona Proposed Project and Alternatives Area

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Tucson, Arizona [a]													
Avg. max. temperature (°F)	64.9	68.3	73.5	81.7	90.5	99.7	99.4	97.2	94.4	84.9	73.2	65.2	82.7
Avg. min. temperature (°F)	38.7	41.1	44.9	50.9	58.7	68.1	74	72.5	67.8	56.9	45.5	39	54.8
Avg. total precipitation (inches)	0.85	0.79	0.69	0.32	0.22	0.27	2.34	2.23	1.32	0.82	0.65	0.96	11.44
Avg. total snowfall (inches)	0.3	0.2	0.2	0	0	0	0	0	0	0	0.1	0.2	1
Benson, Arizona [b]													
Average max. temperature (°F)	63	66.4	72.3	79.2	87.8	96.6	96.4	93.5	91.1	83	71.7	63.1	80.3
Average min. temperature (°F)	28.8	32	36.6	42.1	49.1	58.5	65.7	64.1	57.1	44.8	34.1	29.7	45.2
Average total precipitation (inches)	0.68	0.74	0.51	0.23	0.1	0.37	2.69	2.79	1.32	0.62	0.57	0.71	11.34
Average total snowfall (inches)	0.6	0.6	0.1	0	0	0	0	0	0	0	0.1	0.4	1.8

Notes:
Avg. = average
Max. = maximum
Min. = minimum
[a] Source: Western Regional Climate Center, 2011c, Station ID 028820.
[b] Source: Western Regional Climate Center, 2011d, Station ID 020680.

Background Air Quality

The following section presents the background air quality monitoring data from the nearest monitoring stations to the proposed Project and alternatives. This section is meant to supplement the discussion included in the air quality section of chapter 3.

New Mexico

Table B-4 presents background air quality monitoring data from local monitoring stations in New Mexico within or near the air quality analysis area. These monitors report ambient concentrations of CO, NO_2, SO_2, O_3, and PM_{10}.

As discussed, the proposed Project and alternatives pass near the nonattainment area for PM_{10} next to the city of Anthony in Doña Ana County. However, the nearest monitors for PM_{10} to the proposed Project and alternatives in Doña Ana County (Anthony and Sunland Park) did not reveal recent exceedances (as late as 2010) of the 24-hour PM_{10} standard, as shown in table B-4. Additionally, even though Doña Ana County has been recommended for nonattainment status for O_3, the nearest monitoring locations to the proposed Project and alternatives within Doña Ana County did not indicate exceedances of the 8-hour O_3 standard as late as 2010. Additionally, Grant County was identified as a maintenance area for SO_2. However, the nearest monitoring locations to the proposed Project and alternatives did not reveal exceedances of the primary or secondary NAAQS for SO_2, as shown in table B-4.

Table B-4. New Mexico Background Air Quality Monitoring Data

Pollutant	Averaging Period	First Maximum	Second Maximum	Third Maximum	Year	Location
NO_2	1-hour	43 ppb	43 ppb	–	2010	Santa Teresa/Doña Ana County
	Annual	–	–	0.014 ppm		
O_3	8-hour	0.068 ppm	0.067 ppm	–	2010	Las Cruces/Doña Ana County
O_3	8-hour	0.067 ppm	0.065 ppm	–	2010	Santa Teresa/Doña Ana County
PM_{10}	24-hour	45 µg/m^3	40 µg/m^3	–	2010	Anthony/Doña Ana County
	Annual	–	–	24.2 µg/m^3		
PM_{10}	24-hour	62 µg/m^3	48 µg/m^3	–	2010	Sunland Park/Doña Ana County
	Annual	–	–	24.4 µg/m^3		
PM_{10}	24-hour	50.2 µg/m^3	47.8 µg/m^3	–	2010	Sunland Park/Doña Ana County
	Annual	–	–	8.8 µg/m^3		
PM_{10}	24-hour	14.5 µg/m^3	8.3 µg/m^3	–	2010	Las Cruces/Doña Ana County
	Annual	–	–	4.5 µg/m^3		
NO_2	1-hour	27 ppb	25 ppb	–	2010	Deming (Luna County)
	Annual	–	–	0.011 ppm		
O_3	8-hour	0.064 ppm	0.060 ppm	–	2010	Deming (Luna County)
PM_{10}	24-hour	43 µg/m^3	33 µg/m^3	–	2010	Deming (Luna County)
	Annual	–	–	17 µg/m^3		
O_3	8-hour	0.078 ppm	0.071 ppm	–	2010	Hurley (Grant County)

Table B-4. New Mexico Background Air Quality Monitoring Data (Continued)

Pollutant	Averaging Period	First Maximum	Second Maximum	Third Maximum	Year	Location
PM_{10}	24-hour	30 µg/m^3	26 µg/m^3	–	2010	Silver City (Grant County)
	Annual	–	–	15.4 µg/m^3		
PM_{10}	24-hour	26 µg/m^3	20 µg/m^3	–	2010	Hurley (Grant County)
	Annual	–	–	11.7 µg/m^3		
PM_{10}	24-hour	11.8 µg/m^3	11.2 µg/m^3	–	2010	Silver City (Grant County)
	Annual	–	–	4.3 µg/m^3		
O_2	1-hour	3 ppb	2 ppb	–	2010	Hurley (Grant County)
	3-hour	0.001 ppm	0.001 ppm	–		
	24-hour	0.001 ppm	0.001 ppm			
	Annual	–	–	0.0002 ppm		

Source: EPA (2012).
Notes:
µg/m^3 = micrograms per cubic meter.
ppb = parts per billion.

Arizona

Table B-5 presents background air quality monitoring data from local monitoring stations in Arizona within or near the air quality analysis area. These monitors report ambient concentrations of CO, NO_2, SO_2, O_3, PM_{10} and $PM_{2.5}$. As discussed, the proposed Project and alternatives pass near nonattainment and maintenance areas for PM_{10} and $SO_{2,}$ respectively, in both Cochise County and Pima County. No exceedances, however, were demonstrated at the nearest monitoring stations to the proposed Project and alternatives within those respective Counties for the PM_{10} NAAQS for 2010, as demonstrated in table B-5. The data either demonstrated compliance (via 2010 Pima County monitoring station data) or no data were collected (no monitoring locations near the proposed Project or alternatives in Cochise County) with respect to attainment/nonattainment of the NAAQS for SO_2.

Portions of the proposed Project and alternatives could cross the Tucson CO maintenance area located in Pima County and the San Manuel nonattainment PM_{10} maintenance area located in Pinal County. As shown in table B-5, monitoring locations nearest the proposed Project and alternatives in these Counties did not identify exceedance of the NAAQS for either of these pollutants as recently as 2010.

Table B-5. Arizona Background Air Quality Monitoring Data

Pollutant	Averaging Period	First Maximum	Second Maximum	Third Maximum	Year	Location
O_3	8-hour	0.074 ppm	0.072 ppm	–	2010	Chiricahua National Monument/Cochise County
$PM_{2.5}$	24-hour	13.0 µg/m^3	9.6 µg/m^3	–	2010	Douglas Red Cross/Cochise County
	Annual	–	–	6.3 µg/m^3		
PM_{10}	24-hour	83 µg/m^3	81 µg/m^3	–	2010	Douglas Red Cross/Cochise County
	Annual	–	–	32.5 µg/m^3		

Table B-5. Arizona Background Air Quality Monitoring Data (Continued)

Pollutant	Averaging Period	First Maximum	Second Maximum	Third Maximum	Year	Location
CO	1-hour	2.0 ppm	–	–	2010	Tucson/Pima County
	8-hour	1.1 ppm	0.9 ppm	–		
NO_x	1-hour	63.7 ppb	58.3 ppb	–	2010	Tucson/Pima County
	Annual	–	–	0.027 ppm		
O_3	8-hour	0.068 ppm	0.067 ppm	–	2010	Tucson/Pima County
O_3	8-hour	0.074 ppm	0.072 ppm	–	2010	Tucson/Pima County
PM_{10}	24-hour	31 µg/m^3	29 µg/m^3	–	2010	Corona de Tucson/Pima County
	Annual	–	–	13.2 µg/m^3		
PM_{10}	24-hour	42 µg/m^3	34 µg/m^3	–	2009	Ajo/Tucson/Pima County
	Annual	–	–	20 µg/m^3		
SO_2	1-hour	14 ppb	11 ppb	–	2010	Tucson/Pima County
	3-hour	0.006 ppm	0.005 ppm	–		
	24-hour	0.002 ppm	0.001 ppm	–		
	Annual	–	–	0.002 ppm		
O_3	8-hour	0.071 ppm	0.070 ppm	–	2010	Casa Grande Airport/Pinal County
PM_{10}	24-hour	46 µg/m^3	38 µg/m^3	–	2010	Mammoth/Pinal County
	Annual	–	–	14.7 µg/m^3		
PM_{10}	24-hour	136 µg/m3	101 µg/m^3	–	2010	Casa Grande/Pinal County
	Annual	–	–	39.4 µg/m^3		

Analysis Assumptions

The following section provides a more inclusive summary of the assumptions regarding the calculation of Project and alternatives' emission inventories. This section is meant to supplement the discussion included in the air quality section of chapter 4.

Emission Inventories

Emissions were calculated to estimate ambient air impacts from construction and, where appropriate, operation of the transmission lines, substation, and ancillary equipment associated with the Project. Emission inventories were developed using published and agency-accepted values, such as from emission factors from AP-42, MOBILE6.2, and NONROAD. PM_{10} and $PM_{2.5}$ emissions were quantified for fugitive dust from earth-moving and construction activities that would be associated with construction of the transmission line and substations, including fugitive dust from concrete batch plant construction and operation; fugitive dust from vehicles traveling on paved and unpaved roads accessing various segments of the line route during construction; criteria air pollutants, HAPs, and GHGs resulting from engine exhaust from worker commutes, delivery trucks, and construction equipment during construction; and SF_6 emissions from operation of the gas-insulated circuit breakers in the switchyards.

With the exception of SF_6 emissions from the circuit breakers, Project operational emissions were not quantified. The primary emission sources associated with the operations phase of the transmission lines would include windblown dust from ground disturbance, road dust, and vehicle emissions during periodic maintenance or emergency repair activities. Emission sources would be similar to those from construction activities, but, on an annualized basis, pollutants would be emitted in much smaller amounts. Therefore, the majority of emissions and potential air quality impacts would be associated with the construction of the transmission lines and substations.

MOBILE6.2 was run assuming that construction would take place in 2015 and 2016. The year affects the MOBILE6.2 emission factors used to estimate the engine exhaust from worker commute vehicles, trucks transporting construction equipment, and concrete delivery vehicles, and the NONROAD emission factors were used to estimate the engine exhaust from construction equipment for substation construction, transmission line construction, and concrete batch plant construction. Later years have lower average emission factors owing to increasingly stringent engine emission requirements, generally resulting in lower emissions from newer vehicles. Over time, the older vehicles with higher emissions in the fleet are replaced with newer vehicles with lower emissions, leading to a decrease in the average fleet emissions. Should Project construction activities continue beyond 2016, then vehicle exhaust emission estimates presented herein would be conservative.

Fugitive Dust from Transmission Line, Substation, Access Road, Construction Yard, and Concrete Batch Plant Construction

AP-42 emission factors were used to estimate the fugitive dust from soil-disturbing construction activities such as excavation for lattice structure foundations, grading for access road construction, and grading for creation of temporary construction yards, substations, and concrete batch plants. The following data were provided, or assumptions were made, for calculation of fugitive dust emissions from grading and earth-moving associated with the construction of transmission lines, substations, access roads, temporary construction yards, and batch plants:

- Estimates of disturbance area, number of disturbed sites, and anticipated workforce for construction of transmission lines, substations, access roads, and batch plants were taken from the "Amended Plan of Development for the Southline Transmission Project" (Southline POD; July 2013), as described in chapter 2.
- Constructed access roads were not assumed to be graveled or paved (Southline POD, July 2013).
- Driving surfaces less than 14 feet wide would be widened to 14 feet (Southline POD, July 2013). Therefore, these calculations assumed that construction or improvement of access roads would require grading to a width of 14 feet.
- Emission estimates assumed that the access roads, substations, and temporary construction yards would be graded to a depth of 8 inches.
- Emission estimates assumed that excavation would not be required at substations, concrete batch plants, or temporary construction yards.

Fugitive Dust from Travel on Paved and Unpaved Roadways

AP-42 emission factors were used to estimate the fugitive dust from travel on paved and unpaved roads. The following data were provided, or assumptions were made, for calculation of construction and operation emissions:

- Emission estimates assumed that unpaved roads would be dirt, not gravel.

- Emission estimates assumed that unpaved road travel would consist of the miles traveled on access roads, as discussed in chapter 2.

Traffic Emissions

MOBILE6.2 emission factors were used to estimate the engine exhaust from worker commute vehicles, trucks transporting construction equipment, and concrete delivery vehicles. The MOBILE6.2 emission factors for commuter vehicles are based on an average of the commuter vehicle emission factors for each county in the year 2013. The MOBILE6.2 emission factors for trucks transporting construction equipment and concrete delivery vehicles are based on emission factors for 2013, which are the same for all the Counties and both States. MOBILE6.2 includes an emission factor for CO_2 to obtain GHG emissions for these activities and an emission factor for HAPs as well.

The following data were provided, or assumptions were made, for calculation of construction and operation emissions:

- It is expected that the average commute would be about 20 miles for nonlocals and about 30 miles for locals (Southline POD, July 2013), as discussed in chapter 2:
    - The average commuting trip was therefore assumed to be 25 miles one-way (50 miles round trip).
    - This mileage was used to calculate engine exhaust for travel to construct the substation and transmission line and travel on paved roads. It was assumed that paved road travel would consist of worker commuters, trucks transporting construction equipment, and trucks delivering concrete.
- The New Build and Upgrade Sections average number of commuter trips for substation construction were calculated by multiplying the New Build and Upgrade Sections average number of workers by the New Build and Upgrade Sections average crew days.
- The New Build Section total number of commuter miles for substation construction was calculated by multiplying the New Build Section average number of commuter trips by the average number of miles per round trip commute.
- A weighted average of light-duty gas vehicles and light-duty gas trucks 1 and 2 with average speed of 35 mph was used for engine exhaust from commuter vehicles. (Light-duty gas trucks 1 are 0 to 6,000 pounds gross vehicle weight rating (GVWR) and 0 to 3,750 pounds loaded vehicle weight (LVW), and light-duty gasoline trucks 2 are 0 to 6,000 pounds GVWR and 3,751 to 5,750 pounds LVW.) For fugitive dust from paved road travel, the worker commute vehicle was assumed to be 6,800 pounds (including occupants and cargo).
- An average of 25 miles, or 50 miles round trip, was assumed for transporting construction equipment; this mileage was used for engine exhaust for trucks transporting construction equipment for both substation and transmission line construction and for travel on paved roads. It was assumed that paved road travel would consist of worker commuters, trucks transporting construction equipment, and trucks delivering concrete.
- The New Build Section total number of miles traveled for trucks transporting construction equipment for substation construction assumed that four substations would be needed for the New Build Section.
- The Upgrade Section total number of miles traveled for trucks transporting equipment for substation construction assumed that 11 substations would be needed for the Upgrade Section, as discussed in chapter 2.

- As discussed in chapter 2, heavy-duty diesel vehicles with an average speed of 35 mph were assumed for calculating emissions from trucks transporting construction equipment and trucks delivering concrete. For fugitive dust from paved road travel, trucks transporting construction equipment and trucks delivering concrete were assumed to be 40,000 pounds, which includes weight of cab, trailer, and load
- The total number of miles traveled for transmission line construction in the New Build and Upgrade Sections was based on the assumption that the equipment would be delivered once and travel the length of the line.
- The total commuter trips and miles traveled per New Build Section and Upgrade Section mile were calculated by averaging the crew size (workers) for the New Build and Upgrade Sections provided in the Southline POD (July 2013).

Construction Equipment Emissions

NONROAD emission factors were used to estimate the engine exhaust from diesel-fired construction equipment for substation construction, transmission line construction, and concrete batch plant construction. Two sets of NONROAD emission factors were developed for the year 2013—one for Arizona and one for New Mexico, as minimal variation in fuel blends exist between the States. The NONROAD total hydrocarbon emission factor was used for the volatile organic compound (VOC) emission factor. NONROAD includes an emission factor for CO_2 to obtain estimates of GHG emissions for these activities.

The following data were provided, or assumptions were made, for calculation of emissions from the operation of construction equipment:

- The types of construction equipment required for substation equipment installation and foundations and transmission line construction were taken from the Southline POD (July 2013), and are described in chapter 2.
- The total hours of equipment use and horsepower for substation equipment installation and foundations and transmission line construction provided in the Southline POD (July 2013) were summed for each piece of construction equipment.

Concrete Batch Plant Operation Emissions

AP-42 emission factors were used to estimate the fugitive dust from operation of the concrete batch plants. The following data were provided, or assumptions were made, for calculating concrete batch plant operational emissions:

- The number of concrete batch plants per subroute was taken from the Southline POD (July 2013), as discussed in chapter 2.
- The number of cubic yards of concrete for substation construction and transmission line construction in the New Build and Upgrade Sections was taken from the Southline POD (July 2013), along with the typical delivery distance of approximately 7 miles (14 miles round trip).
    - This mileage was used for engine exhaust from concrete delivery trucks for both substation and transmission line construction and travel on paved roads. It was assumed that paved road travel consists of worker commuters, trucks transporting construction equipment, and trucks delivering concrete.
    - A concrete truck was assumed to carry 10 cubic yards of concrete.

    - The total concrete amount for substation construction and transmission line structure foundation construction in the New Build Section was divided equally between the seven New Build Section batch plants.
    - The total concrete amount for substation construction and transmission line structure foundation construction in the Upgrade Section was divided equally between the four Upgrade Section batch plants.
- Emissions from concrete batch plant operation were assumed to be uncontrolled.

Substation Operation Emissions (Greenhouse Gases)

The emission inventories include GHG estimates from circuit breakers and other high-voltage equipment used in the transmission and distribution system. The Climate Registry Electric Power Sector Protocol was used to develop these emission estimates. The EPA GHG Mandatory Reporting Rule, Subpart DD, was not used for the SF_6 emission estimates because Subpart DD relies on a mass balance in which SF_6 emissions are determined by the amount of SF_6 lost each year, which can only be calculated by measuring the added and/or recovered SF_6 to existing equipment. The Climate Registry methodology was therefore used instead to develop SF_6 emission estimates because it provides emission factors based on industry studies and thus can be applied to equipment that does not yet exist to determine estimated annual emissions.

SF_6 quantities and leakage rates for the different sizes of circuit breakers were provided in the Southline POD (July 2013). The high end of the leak rate range was used in calculations.

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Appendix C

SUPPLEMENTAL NOISE AND VIBRATION INFORMATION

SUPPLEMENTAL NOISE AND VIBRATION INFORMATION

Terminology and Representative Sound Levels

The following section provides a more inclusive summary of some of the terminology used in the noise sections of chapters 3 and 4. Included is a chart of representative sounds and noises.

The decibel scale is commonly used in noise measurements and evaluation. The decibel scale is logarithmic, meaning that a 100-fold increase in sound energy corresponds to an increase of 20 decibels (dB), not 100 dB. A logarithmic scale uses the logarithm of a physical quantity instead of the quantity itself and is useful for representing quantities like sound levels that can vary over a large range. For example, two measurements of 10 units and 1,000,000,000 units might correspond to values of 1 and 9, respectively, on a logarithmic scale. Logarithmic units also add differently than linear units. For example, if one object is 6 feet long and a second is twice as long, the second object is 12 feet long. For sounds, however, if one sound level is 50 dB and a second is twice as loud, the second sound level is approximately 53 dB, not 100 dB.

There are various scales used to measure sounds using decibels. The most common noise metric is the overall A-weighted sound level measurement (dBA). This metric has been adopted by regulatory bodies worldwide. The A-weighting network measures sound in a way that is similar to how a person perceives or hears sound, thus achieving good correlation in terms of how to evaluate acceptable and unacceptable sound levels. A dBA is typically measured as an average noise level on an equal energy basis for a stated period of time (equivalent sound level, or L_{eq}), and is commonly used to measure steady-state sound or noise that is usually dominant. The day-night level, or L_{dn}, is a 24-hour average A-weighted L_{eq} noise level, where 10 dBA is added to nighttime levels between 10 p.m. and 7 a.m. to account for greater human sensitivity to nighttime noise levels. For a continuous source that emits the same noise level over a 24-hour period, the L_{dn} will be 6.4 dBA greater than the L_{eq}.

The relative dBA of common sounds measured in the environment and industry for various qualitative sound levels is provided in table C-1.

Table C-1. Sound Levels of Representative Sounds and Noises

Source	Sound Level (dBA)	Human Response
Jet takeoff (nearby)	150	
Jet takeoff (50 feet)	140	
50-HP siren (100 feet)	130	
Loud rock concert (near stage)	120	Pain threshold
Construction noise (10 feet)	110	Intolerable
Jet takeoff (2,000 feet)	100	
Heavy truck (25 feet)	90	
Garbage disposal (2 feet)	80	Constant exposure endangers hearing
Busy traffic	70	
Normal conversation	60	
Light traffic (100 feet)	50	Quiet
Library	40	

Table C-1. Sound Levels of Representative Sounds and Noises (Continued)

Source	Sound Level (dBA)	Human Response
Soft whisper (15 feet)	30	Very quiet
Rustling leaves	20	▲▼
Normal breathing	10	Barely audible
Threshold of hearing	0	▼

Source: Beranek (1988).

While no completely satisfactory way exists to measure the subjective effects of noise or to measure the corresponding reactions of annoyance and dissatisfaction, effects of noise on humans are generally listed in three categories:

- Subjective effects of annoyance, nuisance, dissatisfaction;
- Interference with activities (e.g., speech, sleep, learning, etc.); and
- Physiological effects (e.g., startling and hearing loss).

While workers in industrial plants may experience noise effects in the last category, environmental noise usually produces effects only in the first two categories. The lack of a common standard by which to evaluate individual thresholds of annoyance and habituation to noise means that an important way of determining a person's subjective reaction to a new noise is to compare it to the existing or "ambient" environment to which that person has adapted. In general, the more the level or the tonal (frequency) variations of a noise exceed the previously existing ambient noise level or tonal quality, the less acceptable the new noise will be as judged by the exposed individual. Therefore, an important metric to determine a person's subjective reaction to a new noise source is to compare it to the existing (i.e., ambient) environment.

Additional Laws, Ordinances, Regulations, and Standards

The following section provides a more inclusive summary of Federal, State, and local laws, regulations, and standards for noise that could impact Project construction and/or operation activities. This section is meant to supplement the discussion included in the noise section of chapter 3.

Occupational Safety and Health Administration, Occupational Health and Safety Act

The Occupational Health and Safety Act of 1970 established hearing conservation noise exposure regulations for workers (codified in 29 CFR 17.1910). The purpose of the act is to ensure safe and healthful working conditions. Worksite noise levels are regulated by Section 1910.95 of the act, which deals with occupational noise exposure. This section limits the noise pressure level to 90 dBA continuous exposure for an 8-hour day. If workers are exposed to an 8-hour time-weighted average of 85 dBA or greater, then a worker hearing protection program that includes baseline and periodic hearing testing, availability of hearing protection devices, and training in hearing damage prevention are required.

Department of Transportation

Several operating administrations of the U.S. Department of Transportation (USDOT) have identified criteria for the assessment of noise from short- and long-term construction activities for both stationary and mobile projects, such as linear projects.

The Federal Highway Administration (FHWA) of the USDOT recommends abatement of construction noise that exceeds certain maximum levels. The FHWA's noise abatement criteria outlined in the "Procedures for Abatement of Highway Traffic Noise and Construction Noise" specify a 1-hour L_{eq} level at which construction activity noise abatement should occur of 57 dBA for "[l]ands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose." All other locations, including residential areas, have a lower-limit outdoor 1-hour L_{eq} level for construction activity abatement of at least 67 dBA (23 CFR 772). While the FHWA construction noise abatement criteria were not developed to specifically address construction noise impact for power transmission line projects, the FHWA guidelines provide reasonable criteria for noise assessment. If these criteria are exceeded, adverse community reaction may result.

The USDOT's Federal Railroad Administration (FRA) and FTA use a sliding scale when evaluating ambient-based noise impacts. The noise impact criteria presented within figure C-1 are based on comparison of the existing outdoor noise levels with the future outdoor noise levels from the proposed Project for three land use categories. The y-axis represents the projected Project noise exposure in cumulative dBA while the x-axis presents the existing noise level. Category 1 land uses include lands where quiet is an essential element in their intended purpose. This includes lands set aside for serenity and quiet, along with such land uses as outdoor amphitheaters and concert pavilions, as well as National Historic Landmarks (NHLs) with significant outdoor use. Category 2 land uses include residences and buildings where people normally sleep. This category includes homes, hospitals, and hotels, where a nighttime sensitivity to noise is assumed to be of utmost importance. Category 3 land uses include institutional land uses, schools, places of worship, and libraries (FTA 2006).

Bureau of Land Management Guidelines

The BLM is the Federal agency charged with managing public lands and is responsible for the development of energy resources on BLM-administered land. The BLM and DOE prepared a Programmatic EIS in November 2008 titled "Designation of Energy Corridors on Federal Land in the 11 Western States" (BLM and DOE 2008). While noise impacts were not expected to occur as a result of Project corridor designation, BLM guidelines outlined in this programmatic EIS can serve as guidance on how BLM may evaluate impacts from similar projects.

State and Local Regulations

Table C-2 presents noise related laws, ordinances, regulations, and standards that have been adopted for regional, County, and local city level. Pima County, Pinal County, and the City of Sierra Vista in Cochise County, Arizona, have noise regulations that are described in more detail below.

Figure C-1. FRA and FTA allowable increase in cumulative noise level. Note: Residential uses are included in Category 2.

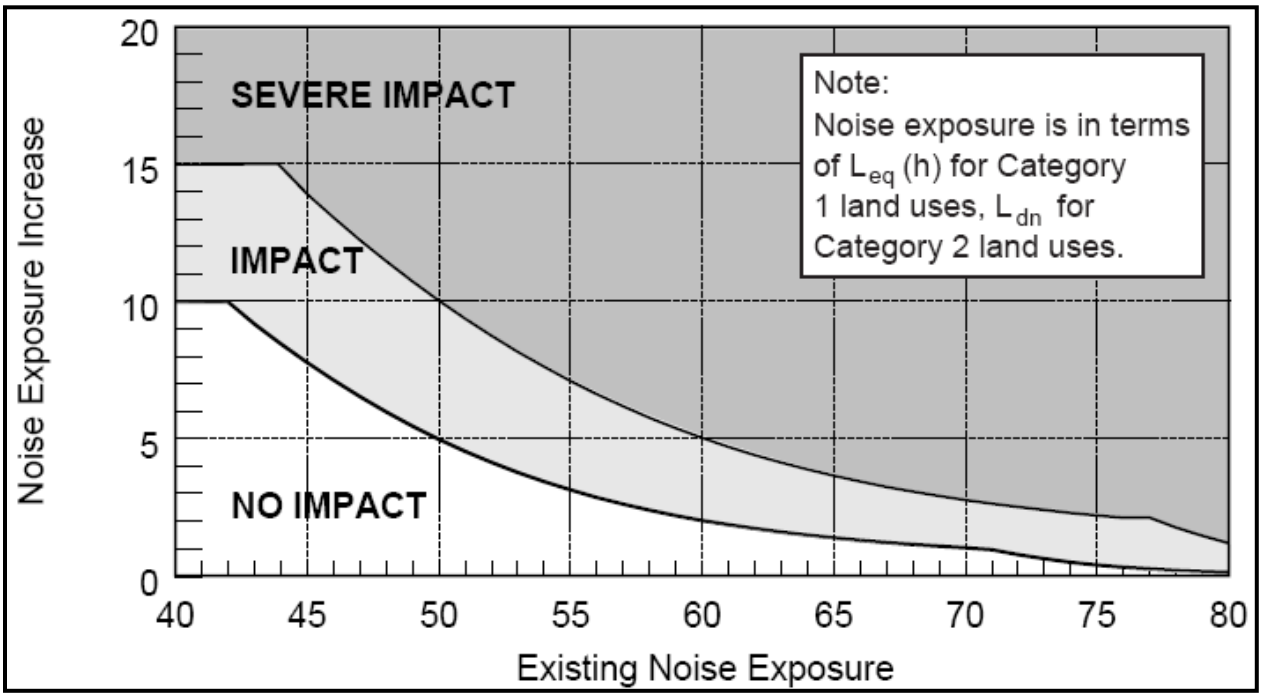

Table C-2. Applicable Regional and Local Plans, Laws, Ordinances, Regulations, and Standards Related to Noise

Jurisdictional	Laws, Ordinances, Regulations, and Standards (LORS)	Project Consistency with LORS
Counties		
Doña Ana County, New Mexico		
County of Doña Ana Comprehensive Plan" (1994)	No noise elements or policies addressing noise standards.	Yes
Doña Ana County Land Use Regulations and Zoning Ordinance (2008)	The plan addresses "excessive noise" in several zones, though a definition of excessive noise is not provided.	Expected
Luna County, New Mexico		
Comprehensive Plan for Luna County, New Mexico 2000–2020" (1999)	Limits uses such that the establishment, maintenance, or operation of the proposed use shall not be noxious or offensive by reason of noise.	Expected
County of Luna Natural Resource Planning and Review Process (1994)	No noise elements or policies addressing noise standards.	Yes
Hidalgo County, New Mexico		
Hidalgo County Comprehensive Plan Update" (2011)	No noise elements or policies addressing noise standards.	Yes
Cochise County, Arizona		
Cochise County Comprehensive Plan" (2006)	No noise elements or policies addressing noise standards.	Yes
Cochise County Zoning Regulations (2008)	No noise elements or policies addressing noise standards.	Yes

Table C-2. Applicable Regional and Local Plans, Laws, Ordinances, Regulations, and Standards Related to Noise (Continued)

Jurisdictional	Laws, Ordinances, Regulations, and Standards (LORS)	Project Consistency with LORS
Graham County, Arizona		
Graham County Land Use and Resource Policy Plan" (1996)	Limits uses such that the establishment, maintenance, or operation of the proposed use shall not be noxious or offensive by reason of noise.	Expected
Graham County Comprehensive Plan" (2002)	No noise elements or policies addressing noise standards.	Yes
An Ordinance Regarding Construction, or Facilities, within Grant County Road Rights-of-Way (1978)	No noise elements or policies addressing noise standards.	Yes
Greenlee County, Arizona		
Greenlee County Comprehensive Plan" (2003)	No noise elements or policies addressing noise standards.	Yes
Greenlee County Planning and Zoning Regulations (2007)	Limits uses such that the establishment, maintenance, or operation of the proposed use shall not be noxious or offensive by reason of noise.	Expected
Pima County, Arizona		
Pima County Comprehensive Plan" (1992)	Residents should be protected to a reasonable extent from continued long-term exposure to high levels of noise and from increasing levels of noise.	Expected
Pima County Code (1985)	Limits uses such that the establishment, maintenance, or operation of the proposed use shall not be noxious or offensive by reason of noise. Construction hours are limited to times outlined in table C-3 because of noise potential.	Expected
Pinal County, Arizona		
Pinal County Development Services Code (2006a)	Limits uses such that the establishment, maintenance, or operation of the proposed use shall not be noxious or offensive by reason of noise.	Expected
Pinal County Comprehensive Plan" (2010)	Establishes a noise-sensitive area with the intent to encourage land use compatibility with airport activities. The noise-sensitive area designation is an overlay designation with additional stipulations to the underlying designations to "reduce interior noise levels to 45 L_{dn}, day-night average sound level, or lower." An objective of the plan is to minimize noise near places people live. However, there are no explicit maximum noise levels for areas outside the noise-sensitive area overlay.	Expected
Excessive Noise Ordinance (2006b)	The ordinance prohibits any noise that exceeds certain levels. Noise levels are permitted to be higher in commercial and industrial areas than in residential areas. The policy states further that at and above these levels, noise is excessive and detrimental to the health and welfare of the citizens of the County, and should be eliminated. The requirements of this noise ordinance as they relate to the proposed Project and alternatives are discussed further below.	Expected
Cities		
City of Deming, New Mexico		
City of Deming Comprehensive Plan Update" (2010)	No noise elements or policies addressing noise standards.	Yes

Table C-2. Applicable Regional and Local Plans, Laws, Ordinances, Regulations, and Standards Related to Noise (Continued)

Jurisdictional	Laws, Ordinances, Regulations, and Standards (LORS)	Project Consistency with LORS
City of Deming Municipal Code (2001)	Limits uses such that the establishment, maintenance, or operation of the proposed use shall not be noxious or offensive by reason of noise.	Expected
City of Willcox, Arizona		
City of Willcox General Plan Update" (2009)	No noise elements or policies addressing noise standards.	Yes
City of Benson, Arizona		
City of Benson General Development Plan" (2002)	The plan acknowledges that Benson sits within a transmission corridor. Included in the Environmental Planning element, Policy 3 indicates that the City should employ noise buffers of native vegetation between roadways and residential areas to reduce noise load impact of increased traffic, and Policy 4 recommends that the City develop a noise level benchmark of current conditions to compare with future noise levels. However, there are no explicit maximum noise levels stated in the plan.	Expected
City Code of the City of Benson, Arizona (2006)	The code limits conditional uses such that noise levels and lights from the facility will not interfere with adjacent land uses or in any way create a nuisance and that noise impacts from nonresidential development should be abated to acceptable residential levels at residential property lines.	Expected
City of Sierra Vista, Arizona		
Sierra Vista Development Code (2009)	The code contains an article to identify acceptable levels of noise and other emissions in various land use categories. The allowed sound levels between land use districts are discussed further below.	Expected
City of South Tucson, Arizona		
City of South Tucson Comprehensive Plan" (1999)	No noise elements or policies addressing noise standards.	Yes
City of Tucson, Arizona		
City of Tucson Land Use Code (1995)	Limits uses such that the establishment, maintenance, or operation of the proposed use shall not be noxious or offensive by reason of noise.	Expected
City of Tucson General Plan" (2001)	Industrial development should utilize appropriate design elements to mitigate visual, noise, odor, and other potential impacts on adjacent uses while improving the streetscape and contributing positively to the overall function and aesthetic quality of the community.	Expected
Town of Marana, Arizona		
Marana General Plan" (2010)	No noise elements or policies addressing noise standards.	Yes
Official Code of the Town of Marana, Arizona (2012)	Limits uses such that the establishment, maintenance, or operation of the proposed use shall not be noxious or offensive by reason of noise. It shall be unlawful to allow or cause site construction activities that result in disturbance to persons residing within 500 feet of the site between the hours of 7 p.m. and 6 a.m. on weekdays and between 7 p.m. and 7 a.m. on weekends.	Expected

Table C-2. Applicable Regional and Local Plans, Laws, Ordinances, Regulations, and Standards Related to Noise (Continued)

Jurisdictional	Laws, Ordinances, Regulations, and Standards (LORS)	Project Consistency with LORS
City of Eloy, Arizona		
City of Eloy General Plan" (2011)	The city shall actively coordinate with electric companies regarding placement, design, and size of proposed and future transmission lines. The plan states that screening techniques (i.e., landscaping, distance, berming, and fencing) shall be used to shield and buffer adjacent residential uses from noise generated by industrial uses.	Expected
City of Eloy Zoning Code and Map	Limits uses such that the establishment, maintenance, or operation of the proposed use shall not be noxious or offensive by reason of noise.	Expected

Pima County contains noise regulations in Chapter 9.30.070, "Construction of Buildings and Other Projects," of the Pima County Code. These standards regulate noise emitted from construction activities on buildings, structures, or projects within the times listed in table C-3.

Table C-3. Pima County Noise Construction Time Restrictions

Concrete Work		Other Type Construction (Residential Zones)		Other Type Construction (Commercial and Industrial Zones)	Weekends and Holidays	
April 15 to October 15	October 16 to April 14	April 15 to October 15	October 16 o April 14	Year-round	Construction or repair work	Concrete pouring
5 a.m. to 7 p.m.	6 a.m. to 7 p.m.	6 a.m. to 7 p.m.	7 a.m. to 7 p.m.	5 a.m. to 7 p.m.	7 a.m. to 7 p.m.	6 a.m. to 7 p.m.

Source: Pima County (1985).
Note: Construction start/stop times are requirements unless authorized for other times by a permit.

While Pima County regulates construction during certain times, there are no maximum noise levels for any type of construction or activity. Section 9.30.070 states that "it shall be unlawful for any person to operate equipment or perform any outside construction or repair work on buildings, structures or projects, or to operate any pile driver, power shovel, pneumatic hammer, derrick, power hoist or any other construction type device except within the time periods specified below unless an appropriate permit has been obtained beforehand from the county."

Baseline Noise Levels

The following section presents more information on baseline noise conditions as discussed in the noise section of chapter 3. Included are tables detailing anticipated noise levels based on land use, heavy truck traffic conditions, baseline noise levels at existing substations, and noise levels of representative construction equipment.

Anticipated Noise Levels by Land Use

Table C-4 shows estimated ranges of sound levels from different land uses during the day and at night (Bishop and Schomer 1991). These ranges can be used to give an estimation of what existing sound levels are along the corridor based on existing land uses.

Table C-4. Land Use and Anticipated Noise Levels

Location	Daytime Outdoor dBA, L_{eq}		Nighttime Outdoor dBA, L_{eq}	
	Minimum	Maximum	Minimum	Maximum
3rd-floor apartment, next to freeway	76	89	62	87
3rd-floor apartment, downtown Los Angeles	69	85	61	80
2nd-floor apartment, New York City	62	83	58	78
Urban shopping center	59	71	49	65
Popular beach on Pacific Ocean	52	69	49	63
Urban residential near major airport	48	92 (aircraft landing)	45	88 (aircraft landing)
Urban residential near ocean	48	70	44	52
Urban residential 6 miles to major airport	44	69	40	66 (distant aircraft)
Suburban residential near railroad tracks	43	68	39	66 (train idling)
Urban residential	44	66	42	64
Urban residential near small airport	45	74 (aircraft takeoff)	38	56 (no aircraft)
Old residential near city center	42	64	43	61
Suburban residential at city outskirts	40	67 (aircraft overhead	33	55 (no aircraft)
Small town residential cul-de-sac	38	57	35	52
Small town residential main street	36	65 (main street traffic)	34	56
Suburban residential in Hill Canyon	33	66 (canyon traffic)	43	61 (traffic and crickets)
Farm in valley	30	52	30	40
Grand Canyon (North Rim)	8	45 (sightseeing traffic)	20	40

Source: Bishop and Schomer (1991).

Baseline Roadway Noise

Potential noise levels that would occur from heavy truck traffic are listed in table C-5. These values will be representative of areas where traffic would represent an existing source of noise.

Table C-5. Noise Levels at Various Distances from Heavy Trucks

	Noise Level $L_{eq(1\text{-}h)}$ at Distances (dBA)					
Hourly Vehicle Traffic	**50 feet**	**250 feet**	**500 feet**	**1,000 feet**	**2,500 feet**	**5,000 feet**
1	51	44	41	38	34	31
10	61	54	51	48	44	41
50	68	61	58	55	51	48
100	71	64	61	58	54	51

Substation Operational Noise

To assess operational and maintenance impacts of the proposed Project and alternatives, the approximate existing noise levels at the proposed substation sites are presented in table C-6.

Table C-6. Current Noise at Proposed Substation Sites along New Build Section

Section	Substation	Distance to Closest Noise-Sensitive Receptor (in feet)	Approximate Substation Noise Based on Existing Conditions at Noise-Sensitive Receptor
New Build	Afton	35,942	< 40 dBA
	Apache	2,736	40 dBA
	Hidalgo	15,120	< 40 dBA
Upgrade	Pantano	13,247	< 40 dBA
	Adams Tap	11,977	< 40 dBA
	Nogales	5,711	< 40 dBA
	Vail	5,534	< 40 dBA
	Rattlesnake	10,687	< 40 dBA
	Tucson-DMP	934	41 dBA
	Marana	512	<40 dBA
	Saguaro/Tortolita	11,484	< 40 dBA
	De Moss Petrie	1,476	41 dBA

Analysis Assumptions

The following section provides a more inclusive summary of the noise calculation assumptions from the Project and alternatives. This section is meant to supplement the discussion included in the noise section of chapter 4.

Other published noise data can be found in one of the most recent and comprehensive compilations of construction equipment noise developed in the United States: the Federal Highway Administration's (FHWA's) "Roadway Construction Noise Model (RCNM) User's Guide" (Final Report, January 2006, FHWA-HEP-05-054, DOT-VNTSC-FHWA-05-01). The RCNM model includes noise levels for several categories of construction equipment, the nosiest of which include impact and vibratory pile drivers (95 dBA at a distance of 50 feet).

A review of the literature on construction equipment noise levels indicates that the loudest equipment generally emits noise in the range of 80 to 90 dBA at 50 feet. Noise at any specific receptor is dominated by the closest and loudest equipment. The types and numbers of construction equipment near any specific receptor location will vary over time. In order to make reasonably conservative estimates of construction noise, it was decided to model a scenario consisting of the following:

- One piece of equipment generating a reference noise level of 85 dBA (at 50 feet distance with a 40 percent usage factor) located on the easement or property line;
- Two pieces of equipment generating reference 85 dBA noise levels located 50 feet farther away on the easement or property line; and
- Two more pieces of equipment generating reference 85-dBA noise levels located 100 feet farther away on the easement or property line.

For example, the level at 50 feet from the ROW was based on one piece of equipment at 50 feet from the receptor, two pieces at 100 feet, and two pieces at 150 feet. The level at 100 feet from the ROW was based on one piece of equipment at 100 feet, two pieces at 150 feet, and two pieces at 200 feet. The level at 200 feet from the ROW was based on one piece of equipment at 200 feet, two pieces at 250 feet, and two pieces at 300 feet. As described in the RCNM User's Guide, the level from each piece of equipment is determined by the following formula for geometric spreading:

*Reference Noise Level – 20*log(Distance to Receptor/50) + 10*log(Usage Factor %/100)*

Thus for the scenario where all equipment has a reference level of 85 dBA and a usage factor of 40 percent, the contribution of each piece of equipment was determined by the following formula:

*85 dBA – 20*log(Distance to Receptor/50) + 10*log(40/100)*

The model determines the total reference level by adding the decibel contribution of each piece of equipment. Construction equipment noise levels at various distances, based on this scenario and under the conditions discussed, are presented in table C-7.

Table C-7. Construction Equipment Noise Levels by Distance

Distance from ROW or Property Line (feet)	L_{eq} Noise Level (dBA)
50	83
100	79
200	74
400	69
800	63
1,600	58
3,200	52
6,400	46

The data in table C-7 are plotted in figure C-2. The expected construction noise levels from proposed transmission line construction activities at any particular location may be estimated using this figure.

Noise Sensitive Receptors

The following section lists out identified non-residential noise sensitive receptors within the noise area of analysis by route group. This section is meant to supplement the discussion included in the noise section of chapter 4.

Route Group 1 – Afton Substation to Hidalgo Substation

The New Build Section of the proposed Project and alternatives between the Afton Substation to Hidalgo Substation passes by five non-residential noise-sensitive receptors and scattered residential areas, primarily near the community of Deming. However, this route group is predominantly open space and has very few noise-sensitive receptors (table C-8).

Figure C-2. Construction equipment noise levels by distance.

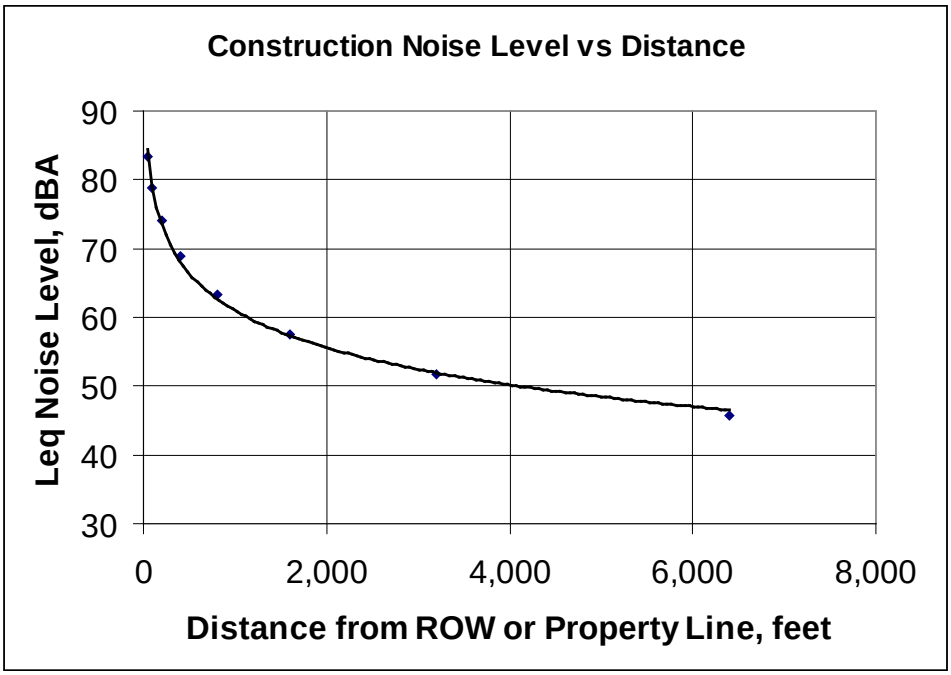

Table C-8. Route Group 1: Noise Sensitive Receptors within Analysis Area

Type of Receptor	Name of Receptor	Distance from Edge of Representative ROW (feet)	Construction Noise Level at NSR (dBA)	Segment
Cemetery	Holy Cross Cemetery	4329	52	Proposed Route, P2
Cemetery	Victorio Cemetery	52	83	Alt. Southern Route, S7
Cemetery	Hachita Cemetery	633	69	Alt. Southern Route, S7
Cemetery	Shakespeare Cemetery	1742	58	Local Alternative D
Church	Hachita Baptist Church	633	69	Alt. Southern Route, S7

Route Group 2 – Hidalgo Substation to Apache Substation

There are six non-residential NSRs identified for this Route Group (five schools and one cemetery). These NSRs are presented in table C-9.

Table C-9. Route Group 2: Noise Sensitive Receptors within Analysis Area

Type of Receptor	Name of Receptor	Distance from Edge of Representative ROW (feet)	Construction Noise Level at NSR (dBA)	Segment
Cemetery	Desert Rest	2428	58	Local Alternative F
School	San Simon Elementary School	4488	52	Local Alternative E
School	San Simon High School	4488	52	Local Alternative E
School	Bowie Elementary School	5227	52	Local Alternative F
School	Bowie High School	5068	52	Local Alternative F
School	Cochise Elementary	897	63	Local Alternative G

Route Group 3 – Apache Substation to Pantano Substation

There are forty non-residential NSRs identified for this route group, which includes churches, schools, museums, libraries, and parks. These NSRs are presented in table C-10.

Table C-10. Route Group 3: Noise Sensitive Receptors within Analysis Area

Type of Receptor	Name of Receptor	Distance from Edge of Representative ROW (feet)	Construction Noise Level at NSR (dBA)	Segment
Church	Living Faith Fellowship	700	69	Proposed Route U2
Church	LDS Church	3900	52	Proposed Route U2
School	Full Gospel Assembly School	2000	58	Proposed Route U2
School	Visions Unlimited Academy	4700	52	Proposed Route U2
School	Benson Primary/Middle/High School	5100	52	Proposed Route U2
Museum	Benson Museum	4500	52	Proposed Route U2
Church	Our Lady of Lourdes	4900	52	Proposed Route U2
Library	Benson Public Library	5100	52	Proposed Route U2
Church	Assembly of God	3100	58	Proposed Route U2
Church	River of Life Christian PCG	2200	58	Proposed Route U2
Church	Calvary Baptist Church	2400	58	Proposed Route U2
Church	Skyline Baptist Church	600	69	Proposed Route U2
Church	Peace in the Valley Lutheran	3800	52	Proposed Route U2
School	New West School	1700	58	Proposed Route U2
School	Andrada High School	3400	52	Proposed Route, U3a
School	Pantano High School	3600	52	Proposed Route, U3a
School	Santa Clara Elementary School	900	63	Proposed Route, U3a
School	Academy del Sol	1000	63	Proposed Route, U3a
School	Southgate Academy	800	63	Proposed Route, U3a
School	Elvira Elementary School	4100	52	Proposed Route, U3a
Church	Apostolic Bethel Temple	3800	52	Proposed Route, U3a
Church	Jehovah Witnesses	3000	58	Proposed Route, U3a
Church	St. Monica Catholic Parish	4400	52	Proposed Route, U3a
Church	Manor Baptist Church	3300	52	Proposed Route, U3a
School	Math and Science Success Academy	3400	52	Proposed Route, U3a
Church	Church of Jesus Christ of Latter-day Saints	4000	52	Proposed Route, U3a
School	San Miguel High School	4400	52	Proposed Route, U3a
Church	The Cool Church	4600	52	Proposed Route, U3a
School	Tucson International Academy	3500	52	Proposed Route, U3a
School	Ombudsmen - Charter Valencia	4000	52	Proposed Route, U3a
Church	Desert Dove Christian Church	3300	52	Proposed Route, U3a
School	Mission Manor Elementary	1700	58	Proposed Route, U3a
Park	Mission Manor Park	1700	58	Proposed Route, U3a
Library	Desert Vista Library	600	69	Proposed Route, U3a
Park	Fiesta Park	4600	52	Proposed Route, U3a

Table C-10. Route Group 3: Noise Sensitive Receptors within Analysis Area (Continued)

Type of Receptor	Name of Receptor	Distance from Edge of Representative ROW (feet)	Construction Noise Level at NSR (dBA)	Segment
School	Arizona Academy of Leadership	2500	58	Proposed Route, U3a
School	Liberty Elementary	4500	52	Proposed Route, U3a
School	Apollo Middle School	4800	52	Proposed Route, U3a
Church	New Horizon Temple	2200	58	Proposed Route, U3a
Church	Welcome Baptist Church	4700	52	Proposed Route, U3a

Route Group 4 – Pantano Substation to Saguaro Substation

There are 75 non-residential NSRs identified for this route group (which includes parks, schools, churches, hospitals, libraries, and cemeteries). These NSRs are presented in table C-11.

Table C-11. Route Group 4: Noise Sensitive Receptors within Analysis Area

Type of Receptor	Name of Receptor	Distance from Edge of Representative ROW (feet)	Construction Noise Level at NSR (dBA)	Segment
Park	Oaktree Park	1000	63	Proposed Route, U3c
School	Raul Grijalva Elementary School	3000	58	Proposed Route, U3c
Church	Jehovah Witnesses	4000	52	Proposed Route, U3c
School	White Elementary School	4800	52	Proposed Route, U3c
Church	Freedom's Gate Ministries	4500	52	Proposed Route, U3c
Church	Pleasant View Baptist Church	5000	52	Proposed Route, U3c
Church	Cactus Community Church	1300	63	Proposed Route, U3c
Church	Charity Tabernacle	1500	63	Proposed Route, U3d
School	McCorkle K-8 School	2300	58	Proposed Route, U3d
Church	Our Lady of Fatima Parish	300	74	Proposed Route, U3d
Church	Mission Park Baptist Church	300	74	Proposed Route, U3d
School	Lynn Elementary School	4200	52	Proposed Route, U3d
Church	House of Prayer	4000	52	Proposed Route, U3d
School	Oyama Elementary School	700	69	Proposed Route, U3d
Church	West Side Church of God	2900	58	Proposed Route, U3d
Church	Emmanuel Grace Apostolic	3300	52	Proposed Route, U3d
Church	Christ Kingdom Fellowship Church	4200	52	Proposed Route, U3d
Park	San Juan Park	1400	63	Proposed Route, U3d
School	Cholla High School	1400	63	Proposed Route, U3d
School	Tolson Elementary School	1300	63	Proposed Route, U3e
Park	Sentinel Peak Park	4000	52	Proposed Route, U3f
School	Tucson International Academy - West	3500	52	Proposed Route, U3f
School	Menlo Park Elementary School	3600	52	Proposed Route, U3g

Table C-11. Route Group 4: Noise Sensitive Receptors within Analysis Area (Continued)

Type of Receptor	Name of Receptor	Distance from Edge of Representative ROW (feet)	Construction Noise Level at NSR (dBA)	Segment
Park	Menlo Park	3500	52	Proposed Route, U3g
Hospital	St. Mary's Hospital	300	74	Proposed Route, U3g
School	Manzo Elementary School	3000	58	Proposed Route, U3g
Church	Victory Baptist Church	1000	63	Proposed Route, U3g
Church	Trinity Hope Church of God	2900	58	Proposed Route, U3g
Library	El Rio Branch Public Library	2600	58	Proposed Route, U3g
Park	Joaquin Murrieta Northwest Park	0	83	Proposed Route, U3h
School	Brichta Elementary	2600	58	Proposed Route, U3h
School	Tully Elementary School	400	69	Proposed Route, U3h
Church	Most Holy Trinity Catholic Church	5000	52	Proposed Route, U3h
Church	Trinity Missionary Baptist Church	3500	52	Proposed Route, U3h
Park	Riverview Park	2300	58	Proposed Route, U3h
Church	Northwest Spanish SDA Church	1000	63	Proposed Route, U3h
School	Ironwood Hills School	3700	52	Proposed Route, U3h
Church	Open Heavens Fellowship	1600	58	Proposed Route, U3h
Church	Faith Christian Fellowship	1600	58	Proposed Route, U3h
School	Richey Elementary School	3300	52	Proposed Route, U3i
School	Nash Elementary School	2400	58	Proposed Route, U3i
Church	St. Michael Ukrainian Catholic Church	2500	58	Proposed Route, U3i
Church	Tucson Tabernacle	5100	52	Proposed Route, U3i
Church	Flowing Wells Assembly of God	2300	58	Proposed Route, U3i
School	Walter Douglas Elementary	2900	58	Proposed Route, U3i
Park	Jacobs Park	4100	52	Proposed Route, U3i
Cemetery	Evergreen Mortuary Cemetery	3000	58	Proposed Route, U3i
School	Luz Academy of Tucson	2900	58	Proposed Route, U3i
Park	Sweetwater Wetlands Park	700	69	Proposed Route, U3i
Church	Northside Fellowship Church	4200	52	Proposed Route, U3i
Church	Victory Worship Center	5000	52	Proposed Route, U3i
Church	Tucson Mountain Congregation	700	69	Proposed Route, U3i
School	Laguna Elementary School	4100	52	Proposed Route, U3i
Church	Northwest Southern Baptist Church	5000	52	Proposed Route, U3i
Park	Christopher Columbus Park	0	83	Proposed Route, U3i
Church	Lord of Grace Lutheran Church	3000	58	Proposed Route, U3i
Church	LDS Church	900	63	Proposed Route, U3i
Library	Wheller Taft Abett Library	2000	58	Proposed Route, U3i
School	Coyote Trails Elementary	900	63	Proposed Route, U3i

Table C-11. Route Group 4: Noise Sensitive Receptors within Analysis Area (Continued)

Type of Receptor	Name of Receptor	Distance from Edge of Representative ROW (feet)	Construction Noise Level at NSR (dBA)	Segment
School	Redeemer Evangelical Lutheran School	400	69	Proposed Route, U3i
School	Rattlesnake Ridge Elementary	0	83	Proposed Route, U3i
School	Twin Peaks Elementary School	1000	63	Proposed Route, U3i
School	Tolson Elementary School	0	83	Local Alternative, TH1a
School	Tucson International Academy	1400	63	Local Alternative, TH1a
School	Maxwell Middle School	2000	58	Local Alternative, TH1a
Park	Greasewood Park	0	83	Local Alternative, TH1b
Park	Linear Park	300	74	Local Alternative, TH1b
Church	Most Holy Trinity Catholic Church	700	69	Local Alternative, TH1b
School	C E Rose Elementary School	3500	52	Local Alternative, TH3-OptionC
School	Pueblo Magnet High	1600	58	Local Alternative, TH3-OptionC
Park	Santa Cruz River Park	0	83	Local Alternative, TH3-OptionC
School	Carrillo Elementary	2500	58	Local Alternative, TH3b
Museum	Tucson Museum of the Arts	1900	58	Local Alternative, TH3b
School	Davis Bilingual School	1600	58	Local Alternative, TH3b
School	Ombudsmen - Charter Central	2200	58	Local Alternative, TH3b

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Appendix D

SPECIAL STATUS PLANT SPECIES AND NOXIOUS WEED SPECIES IN THE ANALYSIS AREA

Table D-1. Special Status Plant Species (endangered, threatened, and sensitive) That Were Analyzed for Potential to Occur within the Analysis Area; FWS, Arizona, and New Mexico

Group/Family	Genus	Species	Common Name	Federal Status			State Status		Local Status		Range	Habitat	Potential to Occur in Portions of the Analysis Area in which it is Listed as a Special Status Species
				ESA (County)	BLM (District)	USFS	Arizona (county)	New Mexico (County)	SDCP	Special Designation Area(s)			
Agavaceae	Agave	murpheyi	Murphey's century plant (Hohokam agave, or Murphey agave)		BLM Sensitive (Phoenix District)		State Protected Species (Pinal)				Present in low numbers in desert foothills of Central Arizona (BLM, 2010). The only known Pinal County locality is along Queen Creek near Superior, Arizona (AGFD, 2003d; AGFD, 2004m). Elevation range 1,300 to 3,200 feet (AGFD, 2003d).	Inhabits benches or alluvial terraces on gentle bajada slopes above major drainages. Found within the Lower Colorado and Arizona Upland subdivisions of the Sonoran Desert where former agricultural areas were managed by the Hohokam Indians (AGFD, 2003d).	Unlikely. The analysis area is outside the known geographic range for this species but may contain suitable desertscrub habitat.
Agavaceae	Agave	parviflora	Smallflower century plant (Santa Cruz striped agave Agave)				State Protected Species (Pima)				Santa Cruz and southern Pima counties, Arizona, and northern Mexico. Elevation range 3,600 to 4,600 feet (ARPC, 2001).	Open slopes in grasslands and oak woodlands (AGFD, 2003f; ARPC, 2001).	None. The analysis area is outside the highly restricted known range of this species.
Agavaceae	Agave	toumeyana var. bella	Tourney's century plant (Toumey agave)				State Protected Species (Pinal) Salvage Restricted				Galiuro, Sierra Ancha, Superstition, Pinal, and New River mountains and Fish Creek Hill in Arizona (SEINet, 2012). Elevation range 2,625 to 5,577 feet (FNA, 2012s).	Desertscrub and chaparral areas (Kearney and Peebles, 1960) and pinyon-juniper woodlands in rocky limestone or basalt slope substrates (FNA, 2012s).	None. The analysis area is outside the highly restricted known geographic range of this species.
Agavaceae	Agave	schottii var. treleasei	Trelease's century plant (Trelease agave)			CNF Sensitive	State Protected Species (Pima)				Known from the Santa Catalina Mountains, Pima County (ARPC, 2001). Possibly in Cochise County (ARPC, 2001). Elevation range 3,600 to 6,500 feet (ARPC, 2001).	Grasslands, juniper-oak woodlands, and higher elevations of desertscrub (AGFD, 2005f; ARPC, 2001).	None. The analysis area is outside the highly restricted known geographic range of this species.
Apiaceae	Lilaeopsis	schaffneriana ssp. recurva	Huachuca water umbel	Endangered (Cochise, Pima)			State Protected Species (Cochise, Pima, Pinal) Highly safeguarded		SDCP plant species	Critical Habitat: Portions of the San Pedro River upstream from St. David and several canyons in or near the Huachuca Mountains (USFWS 2012f).	Southeastern Arizona, southwestern New Mexico, and Sonora, Mexico (AGFD, 2003b; AGFD, 2004b). Disjunct populations in Cochise and Santa Cruz counties exist along the Santa Cruz and San Pedro Rivers, Sonoita Creek, and Scotia, Sunnyside, Garden, and Bear Canyons. Elevation range 3,500 to 6,500 feet (USFWS, 2012a).	Inhabits cienegas, perennial low gradient streams, and wetlands (USFWS, 2012a).	Possible. The analysis area is within the geographic and elevation range for this species. This species has been reported within 3 miles of the proposed route in Arizona (AGFD-HDMS 2013). Possible. The analysis area is within the geographic and elevation range of this species and may contain suitable habitat. Species is known to be present on San Pedro River and Cienega Creek. This species has been reported within 3 miles of the proposed route in Arizona (AGFD-HDMS 2013).

Table D-1. Special Status Plant Species (endangered, threatened, and sensitive) That Were Analyzed for Potential to Occur within the Analysis Area; FWS, Arizona, and New Mexico (Continued)

Group/Family	Genus	Species	Common Name	Federal Status			State Status		Local Status		Range	Habitat	Potential to Occur in Portions of the Analysis Area in which it is Listed as a Special Status Species
				ESA (County)	BLM (District)	USFS	Arizona (county)	New Mexico (County)	SDCP	Special Designation Area(s)			
Apocynaceae	Amsonia	kearneyana	Kearney's bluestar	Endangered (Pima)							Restricted to west-facing drainages in the Baboquivari Mountains of Arizona. Elevation range 3,600 to 3,800 feet (USFWS, 2012b).	Stable, partially shaded, coarse alluvium along dry washes in the desertscrub-grassland transition zone (USFWS, 2012b).	None. The analysis area may contain dry wash habitat but is outside the highly restricted known geographic range for this species.
Apocynaceae	Amsonia	grandiflora	Arizona bluestar (Large-flowered blue star)				State Protected Species (Pima) Highly safeguarded				Patagonia, Atascosa, and Pajarito mountains in southern Arizona, and Sonora, Mexico. Elevation range 3,900 to 4,500 feet (ARPC, 2001).	Full sun or partial shade in oak woodlands on canyon sides and bottoms near Emory and Mexican blue oaks (ARPC, 2001).	None. The analysis area is outside the highly restricted known geographic range of this species in Arizona and lacks well-developed oak woodland habitat.
Asclepiadaceae	Asclepias	lemmonii	Lemmon's milkweed			CNF Sensitive					Found in southeastern Arizona and Chihuahua and Sonora, Mexico. Known from the Baboquivari, Santa Rita, Huachuca, and Chiricahua mountains. Elevation range 5,050 to 7,300 feet in Arizona (AGFD, 2006o).	Inhabits canyons, dry slopes, burned areas, and roadsides within Madrean evergreen, pine-oak, and oak woodland communities (AGFD, 2006o).	None. The analysis area, including the portion within CNF, is outside the known geographic and elevational range of this species in Arizona and lacks well-developed woodland habitat.
Aspleniaceae	Asplenium	[Ceterach] dalhousiae	Countess Dalhousie's spleenwort (Dalhouse spleenwort)		BLM Sensitive (Tucson Field Office)						Currently found in Mule and Huachuca mountains of Cochise County and Baboquivari Mountains in Pima County, Arizona. Elevation range 4,000 to 6,000 feet (AGFD, 2004j).	Occupies cliff face seeps in the Mule Mountains (BLM, 2010). Inhabits Sky Islands in shady, rocky, moist ravines in Madrean oak woodlands (AGFD, 2004j).	None. The analysis area is outside the known geographic range for this species and lacks oak woodland habitat.
Asteraceae	Perityle	ajoensis	Ajo rock daisy				State Protected Species (Pima, Pinal) Salvage Restricted				Ajo Mountains of Arizona. Elevation range 2,600 to 4,800 feet (ARPC, 2001).	Vertical cliffs or boulder faces on the north- or west-facing aspects (ARPC, 2001).	None. The analysis area is outside the known geographic but within the elevational range for this species, but lacks vertical cliff faces.
Asteraceae	Erigeron	arisolius	Arid throne fleabane			CNF Sensitive					Cochise, Pima and Santa Cruz counties, Arizona, and Sonora, Mexico. Restricted to Chiricahua and Huachuca mountains in Cochise County (AGFD, 2001i; 2004r), and possibly in southwestern New Mexico. Elevation range 4,265 to 5,650 feet (AGFD, 2001i).	Moist, rocky soils in grasslands or grassy opening in oak woodlands (AGFD, 2001i).	None. The portion of the analysis area within CNF is outside the known geographic range of this species and lacks moist habitat.

Table D-1. Special Status Plant Species (endangered, threatened, and sensitive) That Were Analyzed for Potential to Occur within the Analysis Area; FWS, Arizona, and New Mexico (Continued)

Group/Family	Genus	Species	Common Name	Federal Status			State Status		Local Status		Range	Habitat	Potential to Occur in Portions of the Analysis Area in which it is Listed as a Special Status Species
				ESA (County)	BLM (District)	USFS	Arizona (county)	New Mexico (County)	SDCP	Special Designation Area(s)			
Asteraceae	Pectis	imberbis	Beardless chinchweed			CNF Sensitive					Southern Arizona, and western Chihuahua and eastern Sonora, Mexico. In Arizona, found in the Canelo Hills and the Atascosa, Patagonia, Santa Rita, and Huachuca mountains. Elevation range 3,600 to 6,475 feet (AGFD, 2000d).	Eroded granite in oak grasslands. Also found along road cuts (AGFD, 2000d).	None. The portion of the analysis area within CNF is outside the known geographic range of this species and lacks suitable oak grassland habitat.
Asteraceae	Erigeron	kuschei	Chiricahua fleabane			CNF Sensitive, ANPPL Salvage Restricted	State Protected Species (Cochise) Salvage Restricted				Restricted to four sites in the Chiricahua Mountains. Elevation range 7,000 to 9,500 feet (ARPC, 2001).	Moss-covered, north-facing, shaded, granitic cliffs and rock ledges (ARPC, 2001).	None. The analysis area, including the portion within CNF, is outside the highly restricted known geographic and elevational range for this species.
Asteraceae	Perityle	cochisensis	Cochise rockdaisy (Chiricahua rock daisy)			CNF Sensitive, ANPPL Salvage Restricted					Reported from Dos Cabezas and Chiricahua mountains, Cochise County. Elevation range 5,500 to 7,000 feet (ARPC, 2001).	Moist, north-facing cliff faces (ARPC, 2001).	None. The analysis area, including the portion within CNF, is outside the highly restricted known geographic and elevational range of this species.
Asteraceae	Perityle	ambrosiifolia	Lace-leaved rockdaisy (Clifton rock daisy)		BLM Sensitive	CNF Sensitive	State Protected Species (Cochise) Salvage Restricted				Limited to Eagle Creek and San Francisco River, Greenlee County, Arizona. Elevation range 1,800 to 4,900 feet (AGFD, 2005c).	Narrow range of cliff faces within Gila Conglomerate (BLM, 2010). Inhabits pinyon-juniper grassland (AGFD, 2005c).	None. The analysis area is outside the highly restricted known geographic range for this species.
Asteraceae	Erigeron	piscaticus	Fish Creek fleabane		BLM Sensitive (Tucson Field Office)	CNF Sensitive	State Protected Species (Pima) Salvage Restricted				Known to occur only from Galiuro Mountains in Graham County to Santa Catalina Mountains in Pima County. Elevation range 2,250 to 3,500 feet (AGFD, 2001d).	Moist, sandy canyon bottoms with perennial streams (AGFD, 2001d).	None. The analysis area is outside the highly restricted known geographic range for this species and lacks moist canyon habitat.
Asteraceae	Heterotheca	rutteri	Rutter's false golden aster (Huachuca golden aster)		BLM Sensitive (Tucson/Safford Field Offices)	CNF Sensitive					Known from only 11 locations in Arizona, including Altar Valley, Sonoita, Canelo Hills, and the Huachuca and Patagonia mountains. Elevation range 3,560 to 5,275 feet (AGFD, 2001f).	Open grasslands, road cuts, and disturbed sites (AGFD, 2001f).	None. The analysis area is outside the highly restricted known geographic range for this species.

Table D-1. Special Status Plant Species (endangered, threatened, and sensitive) That Were Analyzed for Potential to Occur within the Analysis Area; FWS, Arizona, and New Mexico (Continued)

Group/Family	Genus	Species	Common Name	Federal Status			State Status		Local Status		Range	Habitat	Potential to Occur in Portions of the Analysis Area in which it is Listed as a Special Status Species
				ESA (County)	BLM (District)	USFS	Arizona (county)	New Mexico (County)	SDCP	Special Designation Area(s)			
Asteraceae	Senecio	multidentatus var. huachucanus	Huachuca Mountain ragwort (Huachuca groundsel)			CNF Sensitive, ANPPL Salvage Restricted	State Protected Species (Cochise) Highly safeguarded				Southern Arizona and Sonora, Mexico. In Arizona, known from Santa Rita, Huachuca, and Chiricahua mountains. Elevation range 7,000 to 9,500 feet (ARPC, 2001).	Moist loamy soils associated with granite rock outcroppings. Found on north-facing, shaded slopes in oak-pine and pine-fir forests (ARPC, 2001).	None. The analysis area, including the portion within CNF, is outside the known geographic and elevational range of this species and lacks oak-pine or pine-fir forested habitat.
Asteraceae	Erigeron	lemmonii	Lemmon's fleabane	Candidate (Cochise)			State Protected Species (Cochise) Highly safeguarded				Found only in one location in the Huachuca Mountains of Arizona (AGFD, 2004h; AGFD, 2011a). Elevation range 1,500 to 6,000 feet (USFWS, 2012a).	Grows in dense clumps in crevices, ledges, and boulders in canyon bottoms in pine-oak woodlands (USFWS, 2012a).	None. The analysis area is outside the highly restricted known geographic range for this species and does not have pine-oak woodlands.
Asteraceae	Psilactis	gentryi	Mexican tansy aster			CNF Sensitive					Huachuca Mountains of Cochise County and south to central Mexico. Elevation range 5,900 to 9,180 feet (AGFD, 2004w).	Moist habitats, including high meadows, fields, roadsides, and stream and lake margins within woodlands (AGFD, 2004w).	None. The analysis area, including the portion within CNF, is outside the known geographic and elevational range of this species and lacks moist habitat.
Asteraceae	Perityle	cernua	Organ Mountain rock daisy (Nodding cliff daisy)		BLM Sensitive (Las Cruces District)						Currently known only as a narrow endemic in the Organ Mountains of New Mexico (NMRPTC, 1999e). Elevation range 5,000 to 8,800 feet (NMRPTC, 1999e).	Igneous cliffs primarily on rhyolite substrates (NMRPTC, 1999e).	None. The analysis area is outside the highly restricted known geographic range for this species.
Asteraceae	Hieracium	rusbyi (abscissum)	Rusby hawkweed			CNF Sensitive					Southeastern Arizona, New Mexico, and Chihuahua, Mexico. Known from the Pinaleño, Chiricahua, and Huachuca mountains in Arizona. Elevation range 8,800 to 9,300 feet (AGFD, 2005t).	Shady slopes in mixed conifer forests (AGFD, 2005t).	None. The analysis area, including the portion within CNF, is within the known geographic range but lacks conifer forest habitat.
Asteraceae	Heterotheca	rutteri	Rutter's false goldenaster										None. The portion area, including the portion with CNF, is outside the highly restricted known geographic range of this species.
Asteraceae	Packera	neomexicana var. toumeyi	Toumey groundsel			CNF Sensitive					Restricted to the Pinal Mountains in Pinal County and the Chiricahua and Huachuca mountains in Cochise County. Elevation range 5,500 to 9,200 feet (AGFD, 2004u).	Found in loose, rocky soil in oak chaparral through pine forest communities (AGFD, 2004u).	None. The portion of the analysis area within CNF is outside the known geographic and elevational range of this species and lacks oak chaparral or pine forest habitat.

Table D-1. Special Status Plant Species (endangered, threatened, and sensitive) That Were Analyzed for Potential to Occur within the Analysis Area, Arizona, and New Mexico (Continued)

Group/Family	Genus	Species	Common Name	Federal Status			State Status		Local Status		Range	Habitat	Potential to Occur in Portions of the Analysis Area in which it is Listed as a Special Status Species
				ESA (County)	BLM (District)	USFS	Arizona (county)	New Mexico (County)	SDCP	Special Designation Area(s)			
Berberidaceae	Berberis	harrisoniana	Harrison's barberry (Kofa Mountain barberry)		BLM Sensitive (Tucson Field Office)						Limited to Kofa Mountains and isolated ranges in western Pima County and southwestern Maricopa County of Arizona (AGFD, 2004n). Elevation range 2,200 to 3,500 feet (AGFD, 2004n).	Inhabits bottoms of deep, rocky, shady canyons (AGFD, 2004n).	None. The analysis area is outside the highly restricted known geographic range for this species.
Bixaceae	Amoreuxia	gonzalezii	Santa Rita mountain yellowshow (Saiya)			CNF Sensitive	State Protected Species (Pima) Highly safeguarded				Santa Rita Mountains in Arizona, and northern Mexico. Elevation range 4,200 to 4,500 feet (ARPC, 2001).	Rocky, limestone hillsides (ARPC, 2001).	None. The analysis area is outside the highly restricted known geographic range of this species.
Brassicaceae	Arabis	tricornuta	Rincon Mountain rock cress (Chiricahua rock cress)			CNF Sensitive					Endemic to southern Arizona. Found in Rincon, Santa Rita, Huachuca and Chiricahua mountains. Elevation range 6,000 to 8,840 feet (AGFD, 2006n).	Inhabits steep, rocky slopes beneath pines. Also found on road banks. Occurs in Madrean evergreen woodlands and montane conifer forests (AGFD, 2006n).	None. The analysis area, including the portion within CNF, is outside of the known geographic and elevational range of this species and lacks forested habitat.
Cactaceae	Echinomastus	erectocentrus var. acunensis	Acuña cactus	Candidate, SDCP Species (Pima, Pinal)			State Protected Species (Pima, Pinal) Highly safeguarded				Present in western Pima County, central Pinal County, and southwestern Maricopa County in Arizona (AGFD, 2005a; AGFD, 2011b). Elevation range 1,300 to 2,000 feet (USFWS, 2012b).	Inhabits well drained knolls and gravel ridges in Sonoran desertscrub (USFWS, 2012b).	None. The analysis area is outside the highly restricted known geographic range for this species.
Cactaceae	Echinocereus	coccineus Engelm. var. arizonicus (triglochidiatus var. arizonicus)	Arizona hedgehog cactus	Endangered (Pinal)			State Protected Species (Pinal) Highly safeguarded				Central Arizona, in Pinal and Gila counties (AGFD, 2003b; AGFD, 2004f). Elevation range 3,200 to 5,200 feet (USFWS, 2012h).	Inhabits the ecotone between interior chaparral and Madrean evergreen woodland (USFWS, 2012h).	None. The analysis area is outside the highly restricted known geographic range for this species.
Cactaceae	Epithelantha	micromeris	Pingpong-ball cactus (Button cactus)				State Protected Species (Cochise) Salvage Restricted				Santa Cruz and Cochise counties in southeastern Arizona. Elevation range 3,000 to 5,800 feet (AGFD, 2005k).	Chihuahuan Desert grasslands on ridges and hillsides. Limestone substrates and occasionally on igneous soils (AGFD, 2005k).	Possible. The analysis area is within the geographic range of this species and suitable grassland habitat may be present.
Cactaceae	Escobaria (Coryphantha)	sneedii	Sneeds pincushion cactus (Carpet foxtail cactus)				State Protected Species (Cochise) Salvage Restricted				Arizona, New Mexico, Texas, and Chihuahua, Mexico. Known in Arizona from the Chiricahua Mountains and in New Mexico from the Florida Mountains near Deming and the Guadalupe Mountains near Carlsbad. Elevation range 1,969 to 8,530 feet (SEINet, 2012).	Confined to limestone outcrops in Chihuahuan desertscrub to conifer woodlands (SEINet, 2012).	Possible. The analysis area is within the known geographic and elevational range of this species and may contain suitable Chihuahuan desertscrub habitat

Table D-1. Special Status Plant Species (endangered, threatened, and sensitive) That Were Analyzed for Potential to Occur within the Analysis Area; FWS, Arizona, and New Mexico (Continued)

Group/Family	Genus	Species	Common Name	Federal Status			State Status		Local Status		Range	Habitat	Potential to Occur in Portions of the Analysis Area in which it is Listed as a Special Status Species
				ESA (County)	BLM (District)	USFS	Arizona (county)	New Mexico (County)	SDCP	Special Designation Area(s)			
Cactaceae	Escobaria	robbinsiorum	Cochise foxtail cactus (Cochise pincushion cactus)	Threatened (Cochise)			State Protected Species (Cochise)				Southeastern and southwestern Cochise County of Arizona and northern Sonora Mexico (AGFD, 2001a). Elevations greater than 4,200 feet (USFWS, 2012a).	Semi-desert grassland with small shrubs, agave, other cacti, and grama grass. Grows on limestone hills (USFWS, 2012a).	None. The analysis area contains semi-desert grassland habitat but is outside the highly restricted known geographic range for this species.
Cactaceae	Peniocereus	striatus	Gearstem cactus (Dahlia rooted cereus)				State Protected Species (Cochise) Salvage Restricted				South-central Arizona along the U.S.–Mexico border. Elevation range 0 to 1,640 feet (FNA, 2012r).	Sonoran Desert, small hills and flats (FNA, 2012r).	None. The analysis area is outside the known geographic range for this species and lacks Sonoran Desert sand hills and flat areas.
Cactaceae	Ferocactus	cylindraceus	California barrel cactus (Desert barrel cactus)				State Protected Species (Pima, Pinal) Salvage Restricted				Utah, Nevada, California, Arizona, and Baja California and Sonora, Mexico. Within Arizona, known from the low deserts of the western and central portions of the State. Southeastern-most records in the State are from the Tucson Mountains (SEINet, 2012). Elevation range 200 to 2,900 feet (AGFD, 2005m).	Sonoran and Mohave deserts on gravelly or rocky hillsides, canyon walls, alluvial fans, and wash margins. Alluvial plains and igneous and limestone substrates (AGFD, 2005m).	Possible. The analysis area is within the geographic and elevation range of this species and suitable desertscrub habitat may be present.
Cactaceae	Echinocereus	pseudopectinatus	Devilthorn (Devilthorn hedgehog cactus)				State Protected Species (Cochise) Salvage Restricted				Southeastern Arizona. Elevation range 3,940 to 4,595 feet (FNA, 2012d).	Chihuahuan Desert, mostly semi-desert grassland, desertscrub, igneous substrates, and rocky slopes (FNA, 2012d).	Possible. The analysis area is within the geographic and elevation range of this species and suitable desert scrub and semi-desert grassland habitat may be present.
Cactaceae	Opuntia	polyacantha (arenaria)	El Paso prickly pear (Dune prickly pear)		BLM Sensitive (Las Cruces District)			NM Endangered (Luna, Dona Ana)			Southern Socorro, Doña Ana and Luna counties in New Mexico. Also in Texas and Chihuahua Mexico. Elevation range 3,800 to 4,300 feet (NMRPTC, 1998a).	Sandy areas in Chihuahuan desertscrub (NMRPTC, 1998a).	Possible. The analysis area is within the geographic and elevational range of this species and suitable sandy habitat may be present.
Cactaceae	Ferocactus	emoryi	Emory's barrel cactus ()				State Protected Species (Pima) Salvage Restricted				Southeastern Arizona. Elevation range 0 to 3,940 feet (FNA, 2012e).	Sonoran desertscrub on hillsides, alluvial fans, wash margins, flats, mesas, bajadas, rocky slopes. Gravelly, rocky, or sandy soils. Igneous substrates (FNA, 2012e).	None. The analysis area is outside the known geographic range for this species.

Table D-1. Special Status Plant Species (endangered, threatened, and sensitive) That Were Analyzed for Potential to Occur within the Analysis Area, Arizona, and New Mexico (Continued)

Group/Family	Genus	Species	Common Name	Federal Status			State Status		Local Status		Range	Habitat	Potential to Occur in Portions of the Analysis Area in which it is Listed as a Special Status Species
				ESA (County)	BLM (District)	USFS	Arizona (county)	New Mexico (County)	SDCP	Special Designation Area(s)			
Cactaceae	Opuntia	engelmannii var. flavispina	Cactus apple (Engelmann prickly pear)				State Protected Species (Pima) Salvage Restricted				Graham, Maricopa, Mohave, Pima (Organ Pipe National Monument, Waterman Mountains, Atascosa Mountains, and Cabeza Prieta National Wildlife Refuge), Santa Cruz, and Yavapai counties in Arizona (SEINet, 2012). Elevation range 1,640 to 2,625 feet (FNA, 2012h).	Sonoran Desert on sandy bajadas (FNA, 2012h).	Possible. The analysis area is within the known geographic and elevational range for this species and may contain suitable desertscrub habitat.
Cactaceae	Peniocereus	greggii var. greggii	Night-blooming cereus (Greg Night-blooming cereus)		BLM Sensitive (Las Cruces District)		State Protected Species (Cochise)	NM Endangered (Hidalgo, Grant, Luna, Dona Ana)			Doña Ana, Grant, Hidalgo, and Luna counties in New Mexico. Also in Texas, Arizona, and Chihuahua, Mexico. Elevation range 3,940 to 4,920 feet (FNA, 2012a).	Sandy to silty gravelly soils in level terrain. Desert grasslands and Chihuahuan desertscrub (NMRPTC, 1998b).	Possible. The analysis area is within the geographic range of this species and suitable grassland or desertscrub habitat may be present.
Cactaceae	Opuntia	x kelvinensis	Kelvin cholla				State Protected Species (Pima) Salvage Restricted				Southeastern Arizona. Elevation range 1,800 to 3,100 feet (SEINET, 2012).	Edges of grasslands, desertscrub, rolling hills, and rocky flats and slopes (SEINet, 2012).	Possible. The analysis area is within the geographic and elevation range of this species and this species has been reported from west edge of Tucson.
Cactaceae	Echinocereus	fasciculatus	Pink flower hedgehog cactus (Magenta Flower hedge-hog cactus)				State Protected Species (Pima) Salvage Restricted				South-central to southwestern Arizona. Elevation range 1,970 to 3,280 feet (FNA, 2012c).	Sonoran Desert, desertscrub, semi-desert grassland, and interior chaparral (FNA, 2012c).	Possible. The analysis area is within the geographic and elevation range of this species and suitable habitat may be present.
Cactaceae	Echinomastus	erectocentrus var. erectocentrus	Redspine fishhook cactus (Needle-spined pineapple cactus)			ANPPL Salvage Restricted	State Protected Species (Cochise, Pima, Pinal) Salvage Restricted		SDCP plant species		Pinal, Pima, and Cochise counties in Arizona. Elevation range 2,953 to 4,921 feet (AGFD, 2009a; 2004ac).	Desert grasslands on low bajadas and gravelly hills. Igneous, calcareous, and limestone substrates. (ARPC, 2001; AGFD, 2009a).	Possible. The analysis area is within the geographic range of this species and suitable grassland habitat may be present. This species is known to be present within 2 miles of the Proposed Upgrade Section and within 3 miles of the New Build Section (AGFD, 2012b; 2012c).
Cactaceae	Echinocactus	horizonthalonius var. nicholii	Nichol's echinocactus (Nichol Turk's head cactus)	Endangered (Pima, Pinal)			State Protected Species (Pima, Pinal) Highly safeguarded				Limited to three populations in the Waterman and Vekol mountains, and Koht Kohl Hill (AGFD, 2004e; AGFD, 2008). Elevation range 2,400 to 4,100 feet (USFWS, 2012b).	Sonoran desertscrub in unshaded microclimates on dissected alluvial fans at the foot of and on inclined terraces and saddles on limestone mountains (USFWS, 2012b).	None. The analysis area is outside of the highly restricted known geographic range for this species.

Table D-1. Special Status Plant Species (endangered, threatened, and sensitive) That Were Analyzed for Potential to Occur within the Analysis Area; FWS, Arizona, and New Mexico (Continued)

Group/Family	Genus	Species	Common Name	Federal Status			State Status		Local Status		Range	Habitat	Potential to Occur in Portions of the Analysis Area in which it is Listed as a Special Status Species
				ESA (County)	BLM (District)	USFS	Arizona (county)	New Mexico (County)	SDCP	Special Designation Area(s)			
Cactaceae	Peniocereus	greggii var. transmontanus	Night-blooming cereus				State Protected Species (Pima) Salvage Restricted				Southern Arizona. Elevation range 985 to 3,610 feet (FNA, 2012i).	Sonoran Desert, creosote-bursage flats, in flats, edges of washes, and slopes of small hills. Sandy or gravelly loam substrates (FNA, 2012i).	Possible. The analysis area is within the geographic and elevation range of this species and suitable creosote-bursage habitat may be present within the analysis area.
Cactaceae	Escobaria	organensis	Organ Mountain foxtail cactus (Organ Mountain pincushion cactus)					NM Endangered (Dona Ana)			Restricted to the Organ and northern Franklin mountains in Doña Ana County, New Mexico. Elevation range 4,400 to 8,530 feet (NMRPTC, 2006b).	On andesite, quartz-monzonite, rhyolite, and limestone in Chihuahuan desertscrub and oak or pinyon-juniper woodlands (NMRPTC, 2006b).	None. The proposed analysis area may contain suitable Chihuahuan desert scrub habitat but is outside the highly restricted known geographic range of this species.
Cactaceae	Stenocereus	thurberi	Organ pipe cactus				State Protected Species (Pinal, Pima) Salvage Restricted				South-central Arizona in Organ Pipe National Monument. Elevation range 66 to 3,610 feet (FNA, 2012p).	Upland Sonoran Desertscrub (FNA, 2012p).	None. The analysis area is outside the highly restricted known geographic range for this species.
Cactaceae	Coryphantha	scheeri var. robustispina	Long-tubercle beehive cactus (Pima pineapple cactus)	Endangered (Pima)			State Protected Plant (Pima) Highly safeguarded		SDCP plant species		South-central Arizona and north-central Sonora. Between Santa Rita and Baboquivari mountains in Pima and Santa Cruz counties (AGFD, 2001b). Elevation range 2,300 to 5,000 feet (USFWS, 2012b).	Open areas or flat ridge tops in Sonoran desertscrub or semi-desert grassland communities (USFWS, 2012b).	Possible. The analysis area is within its geographic and elevation range and contains desertscrub or semi-desert grassland habitat. This species has been reported within 2 miles of the proposed route in Arizona (AGFD, 2012b).
Cactaceae	Echinocereus	ledingii	Leding's hedgehog cactus (Pinaleño hedgehog cactus)				State Protected Species (Cochise) Salvage Restricted				Santa Catalina, Graham, Pinaleno, and Mule mountains of Arizona (Benson, 1969). Also found in Santa Theresa and Dos Cabezas mountains of Arizona (AGFD, 1998b; 2004ab). Elevation range 4,000 to 7,400 feet (AGFD, 1998b).	Gravelly or sandy mountain slopes in chaparral, woodlands, or grasslands (Benson, 1969).	None. The analysis area is below the elevational limits for this species and it has not been reported in the mountain ranges in close proximity to the analysis area.
Cactaceae	Pachycereus (Lophocereus)	schottii	Senita cactus				State Protected Species (Pima) Salvage Restricted				Extreme southern Arizona in Organ Pipe National Monument in Pima County and Sonora and Baja California in Mexico (Benson, 1969). Elevation range 1,000 to 2,000 feet (Epple and Epple, 2012)	Deserts in sandy soils (Epple and Epple, 2012).	None. The analysis area is outside the highly restricted known geographic range for this species.

1 **Table D-1.** Special Status Plant Species (endangered, threatened, and sensitive) That Were Analyzed for Potential to Occur within the Analysis Area; FWS, Arizona, and New Mexico (Continued)

Group/Family	Genus	Species	Common Name	Federal Status			State Status		Local Status		Range	Habitat	Potential to Occur in Portions of the Analysis Area in which it is Listed as a Special Status Species
				ESA (County)	BLM (District)	USFS	Arizona (county)	New Mexico (County)	SDCP	Special Designation Area(s)			
Cactaceae	Coryphantha	robustispina (scheeri var. valida)	Scheer's beehive cactus (Slender needle corycactus)				State Protected Species (Cochise) Salvage Restricted				Texas, southern New Mexico, southern Arizona, and Chihuahua, Durango, and Coahuila, Mexico. In Arizona, known from San Simon Valley and near Nogales. Elevation range 3,900 to 4,800 feet (AGFD, 2005i).	Found in deep, sandy soils in bottomlands or grasslands and deserts (AGFD, 2005i).	Possible. The analysis area is within the known geographic and elevational range of this species and may contain suitable grassland habitat in San Simon Valley near Willcox. This species has been reported within 3 miles of the proposed route in Arizona (AGFD-HDMS 2013).
Cactaceae	Escobaria (Coryphantha)	sneedii var. sneedii	Sneed's pincushion cactus	Endangered (Dona Ana)	BLM Sensitive (Las Cruces District)			NM Endangered (Dona Ana)			Limited to Organ and Franklin mountains east of the Rio Grande River and between Las Cruces, New Mexico, and El Paso, Texas (NMRPTC, 2005c; USFWS, 1986). Elevation range 4,000 to 5,900 feet (NMRPTC, 2005b; NatureServe, 2011).	Restricted to limestone formations. Grows in cracks on vertical cliffs or ledges in Chihuahuan desertscrub (NMRPTC, 2005b).	None. The analysis area is outside the highly restricted known geographic range of this species.
Cactaceae	Escobaria	villardii	Sacramento Mountain foxtail cactus		BLM Sensitive (Doña Ana)			NM Endangered			New Mexico, Otero and Doña Ana counties; west slope of the Sacramento Mountains and northern Franklin Mountains.	Loamy soils of desert grassland with Chihuahuan desert scrub on broad limestone benches in mountainous terrain; 1,370-2,000 m (4,500-6,500 ft).	
Cactaceae	Cylindropuntia (Opuntia)	versicolor	Staghorn cholla				State Protected Species (Pima, Pinal) Salvage Restricted						Possible. The analysis area is within the geographic and elevation range for this species. This species is known to be present within 2 miles of the Upgrade Section (AGFD, 2012b).
Cactaceae	Mammillaria	thornberi	Thornber's nipple cactus (Thornber fishhook cactus)				State Protected Species (Pinal) Salvage Restricted				South-central Arizona (FNA, 2012l) and Sonora, Mexico. Elevation range 1,310 to 1,970 feet (SEINet, 2012).	Sonoran desertscrub under shrubs along valley floors. Silty or sandy soil substrates (SEINet, 2012).	Possible. The analysis area is within the geographic and elevation range for this species. This species is known to be present within 2 miles of the Upgrade Section (AGFD, 2012b).
Cactaceae	Escobaria	villardii	Sacramento Mountain foxtail cactus (Villard's pincushion cactus)		BLM Sensitive (Las Cruces District)			NM Endangered (Dona Ana)			Limited to west slope of Sacramento Mountains and north end of Franklin Mountains of New Mexico. Elevation range 4,500 to 6,500 feet (NMRPTC, 2006a).	Desert grasslands with Chihuahuan desertscrub in loamy soils on limestone benches (NMRPTC, 2006a).	None. The analysis area is outside the highly restricted known geographic range for this species.

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Table D-1. Special Status Plant Species (endangered, threatened, and sensitive) That Were Analyzed for Potential to Occur within the Analysis Area; FWS, Arizona, and New Mexico (Continued)

Group/Family	Genus	Species	Common Name	Federal Status			State Status		Local Status		Range	Habitat	Potential to Occur in Portions of the Analysis Area in which it is Listed as a Special Status Species
				ESA (County)	BLM (District)	USFS	Arizona (county)	New Mexico (County)	SDCP	Special Designation Area(s)			
Cactaceae	Mamillaria	wrightii var. wilcoxii	Wilcox's nipple cactus (Wilcox pincushion cactus)				State Protected Species (Cochise) Salvage Restricted	NM Endangered (Hidalgo)			Arizona, New Mexico, and likely Mexico. Known from Cochise, Graham, and Santa Cruz Counties in Arizona and Hidalgo County in New Mexico (NatureServe, 2011).	Low hills along the edges of woodlands (NatureServe, 2011).	None. The analysis area is within the known geographic range of this species but lacks well-developed woodland habitat. However, habitat may be present in the Arizona portion of the analysis area and this species is known to be present within 2 miles of the Upgrade Section in Arizona (AGFD, 2012b).
Campanulaceae	Lobelia	fenestralis	Fringeleaf lobelia (Leafy lobelia)				State Protected Species (Cochise) Salvage Restricted				Southeastern Arizona, southwestern New Mexico, and western Texas southward to Sonora and Chihuahua Mexico. Elevation range 3,510 to 6,000 feet (AGFD, 2005o).	Grasslands, swales, and moist meadows. Pine-oak woodlands in Mexico. Unknown substrates (AGFD, 2005o).	None. The analysis area is outside the known geographic range for this species and lacks pine-oak woodland habitat.
Capparaceae	Cleome	multicaulis	Slender spider flower (Playa spider plant)				State Protected Species (Cochise) Salvage Restricted				Southern Wyoming, south-central Colorado, southwestern New Mexico, southeastern Arizona, and south to central Mexico. Reported from Willcox Playa and San Bernardino Ranch, but Arizona populations have not been confirmed since the 1940s (AGFD, 2001k). Elevation range 3,600 to 4,200 feet (AGFD, 2001k).	Wet, saline, or alkaline soils in playas or alkaline meadows (AGFD, 2001k).	Unlikely. The Arizona portion of the analysis area is within the known geographic and elevational range of this species and may contain suitable playa habitat but it is unclear whether this species still occurs in Arizona.
Caryophyllaceae	Stellaria	porsildii	Porsild's starwort			CNF Sensitive					Only known from Rustler Park in the Chiricahua Mountains of Cochise County, Arizona, and Signal Peak of the Piños Altos Mountains of Grant County, New Mexico. Elevation range 7,000 to 8,000 feet (ARPC, 2001).	Open meadows and partially shaded understory in pine, fir, and oak forests (ARPC, 2001).	None. The analysis area, including the portion within CNF, is outside the highly restricted known geographic and elevational range of this species and lacks meadow or forest habitat.
Crassulaceae	Graptopetalum	bartramii	Patagonia Mountain leatherpetal (Bartram stonecrop)		BLM Sensitive (Tucson Field Office)	CNF Sensitive	State Protected Species (Cochise, Pima) Salvage Restricted				Present in several mountain ranges in southeastern Arizona. Elevation range 3,650 to 6,700 feet (AGFD, 2001e).	Rocky outcrops in canyons with Madrean evergreen woodland (BLM, 2010). Inhabits cracks with deep litter cover along arroyos (AGFD, 2001e).	None. The analysis area is within the geographic and elevation range of this species, but lacks well-developed evergreen woodland habitat with deep leaf litter.

Table D-1. Special Status Plant Species (endangered, threatened, and sensitive) That Were Analyzed for Potential to Occur within the Analysis Area; FWS, Arizona, and New Mexico (Continued)

Group/Family	Genus	Species	Common Name	Federal Status			State Status		Local Status		Range	Habitat	Potential to Occur in Portions of the Analysis Area in which it is Listed as a Special Status Species
				ESA (County)	BLM (District)	USFS	Arizona (county)	New Mexico (County)	SDCP	Special Designation Area(s)			
Crossosomataceae	Apacheria	chiricahuensis	Apachebush (Chiricahua rock flower)				State Protected Species (Cochise) Highly safeguarded				Known from Chiricahua and Dragoon mountains in Arizona and San Mateo and Black mountains in New Mexico. Possibly in Mexico. Elevation range 5,160 to 7,000 feet (AGFD, 2005h).	Cliff faces and crevices of rock outcrops (AGFD, 2005h).	None. The analysis area is outside the known geographic and elevational range of this species.
Cucurbitaceae	Tumamoca	macdougalii	Tumamoc globeberry		BLM Sensitive, SDCP Species (Tucson Field Office)	ANNPL Salvage Restricted	State Protected Species (Pima, Pinal) Salvage Restricted		SDCP plant species		Present in southern Pinal and Maricopa counties and widespread in Pima County. Also present in Sonora and Sinaloa, Mexico. Elevations below 3,000 feet (AGFD, 2004p).	Xeric areas under nurse plants along gullies and shady washes of hills and valleys in Sonoran desertscrub and Sinaloan thornscrub communities (AGFD, 2004p).	Possible. The analysis area is within the geographic range for this species and may contain suitable desertscrub habitat. This species is known to be present within 2 miles of the Upgrade Section (AGFD, 2012b).
Cyperaceae	Carex	chihuahuensis	Chihuahuan sedge			CNF Sensitive		NM Endangered (Hidalgo)			Found in southeastern Arizona, southwestern New Mexico, and Sonora and Chihuahua, Mexico. Known from the Chiricahua, Huachuca, Pinaleño, Sierra Ancha, Santa Catalina, San Luis, Rincon, Atascosa, and Santa Rita mountains. Also known from the San Bernardino Valley in Cochise County. Elevation range 3,600 to 7,200 feet in Arizona (AGFD, 2004q).	Cienegas, marshy areas, canyon bottoms, and wet meadows in pine-oak forests and riparian woodlands (AGFD, 2004q).	None. The portion of the analysis area within CNF is within the known geographic and elevational range of this species but lacks aquatic/wet habitats required by this species.
Cyperaceae	Carex	ultra (spissa var. ultra)	Cochise sedge (Arizona giant sedge)		BLM Sensitive (Safford Field Office)	CNF Sensitive					Found in numerous mountain ranges of southeastern Arizona. Elevation range 2,040 to 6,000 feet (AGFD, 2000b).	Inhabits moist areas near springs and streams with undulating rocky-gravelly soils (AGFD, 2000b).	Possible. The analysis area is within the geographic and elevational range of this species and may contain suitable habitat. However, this species has no potential to occur on CNF lands (Upgrade Section Segment U1) within the analysis area. This species has been reported within 3 miles of the proposed route in Arizona (AGFD-HDMS 2013).

Table D-1. Special Status Plant Species (endangered, threatened, and sensitive) That Were Analyzed for Potential to Occur within the Analysis Area; FWS, Arizona, and New Mexico (Continued)

Group/Family	Genus	Species	Common Name	Federal Status			State Status		Local Status		Range	Habitat	Potential to Occur in Portions of the Analysis Area in which it is Listed as a Special Status Species
				ESA (County)	BLM (District)	USFS	Arizona (county)	New Mexico (County)	SDCP	Special Designation Area(s)			
Euphorbiaceae	Tragia	laciniata	Sonoita noseburn (Sonoran noseburn)			CNF Sensitive					Southeastern Arizona and eastern Sonora and Chihuahua, Mexico, and possibly New Mexico as well. In Arizona, known from Canelo Hills and Santa Rita, Pajarito, Patagonia, Atascosa, and Huachuca mountains. Elevation range 3,500 to 5,680 feet (AGDF, 2004y).	Along streams, canyon bottoms, and on shaded hillsides in oak woodlands and pine-oak forests (AGFD, 2004y).	None. The portion of the analysis area within CNF is outside the known geographic range of this species and lacks well-developed oak woodland or pine-oak forest habitat.
Euphorbiaceae	Euphorbia	macropus	Huachuca Mountain spurge (Woodland spurge)				State Protected Species (Cochise) Salvage Restricted				Southern Arizona, to Chihuahua and Sonora Mexico (AGFD, 2005l). Elevation range 2,140 to 7,425 feet; SEINet collections in Arizona ranged from 5,200 to 7,250 feet (AGFD, 2005l).	Pine-oak woodlands in shady canyon bottoms and open hillsides in leaf litter. Alluvial substrates (AGFD, 2005l).	None. The analysis area is outside the known geographic range for this species and lacks pine-oak woodland habitat.
Fabaceae	Pediomelum	pentaphyllum	Small Indian breadroot (Chihuahua scurf pea)		BLM Sensitive (Las Cruces District)	CNF Sensitive					Known from two sites in eastern Hidalgo County, New Mexico, and possibly Cochise and Graham counties in Arizona. Also in Chihuahua, Mexico. Elevation range 4,400 to 6,600 feet (NMRPTC, 1999c).	Occupies healthy grasslands (BLM, 2010). Associated with mesquite and desert grasslands in New Mexico (NMRPTC, 1999c).	Possible. The analysis area is within the geographic and elevation range of this species and suitable grassland habitat may be present.
Fabaceae	Astragalus	cobrensis var. maguirei	Maguire-s milkvetch (Coppermine milkvetch)			CNF Sensitive, ANPPL Salvage Restricted	State Protected Species (Cochise) Salvage Restricted				Known from Chiricahua and Peloncillo mountains. Possibly in Pinaleño Mountains. Elevation range 5,080 to 7,450 feet (AGFD, 1999c).	Near stream bottoms and on lower terraces in shady canyons on shattered rock and rich humus. Found in pinyon-juniper through oak-pine woodlands (AGFD, 1999c).	None. The analysis area, including the portion within CNF, is outside the known geographic and elevational range of this species and lacks well-developed woodland habitat.
Fabaceae	Dalea	tentaculoides	Gentry's indigobush		BLM Sensitive (Tucson Field Office)	CNF Sensitive	State Protected Species (Pima) Highly safeguarded				Limited to Sycamore Canyon of Atascosa and Pajarito mountains in Santa Cruz County and Baboquivari Mountains in Pima County. Elevation range 3,600 to 4,580 feet (AGFD, 2001c).	Floodplain terraces in shady canyons (BLM, 2010). Inhabits canyon bottom on cobble terraces (AGFD, 2001c).	None. The analysis area is outside the highly restricted known geographic range for this species.
Fabaceae	Astragalus	hypoxylus	Huachuca Mountain milkvetch (Huachuca milkvetch)		BLM Sensitive (Tucson Field Office)	CNF Sensitive, ANPPL Salvage Restricted	State Protected Species (Cochise) Salvage Restricted				Huachuca and Patagonia mountains, Cochise and Santa Cruz counties of Arizona. Elevation range 5,300 to 6,100 feet (AGFD, 1999b).	Inhabits open rocky limestone clearings in oak-juniper-pinyon woodlands with 25-30° slopes (AGFD, 1999b).	None. The analysis area, including the portion within CNF, is outside the known geographic and elevational range for this species (AGFD, 1999b; 2006b) and lacks evergreen woodland habitat.

Table D-1. Special Status Plant Species (endangered, threatened, and sensitive) That Were Analyzed for Potential to Occur within the Analysis Area; FWS, Arizona, and New Mexico (Continued)

Group/Family	Genus	Species	Common Name	Federal Status			State Status		Local Status		Range	Habitat	Potential to Occur in Portions of the Analysis Area in which it is Listed as a Special Status Species
				ESA (County)	BLM (District)	USFS	Arizona (county)	New Mexico (County)	SDCP	Special Designation Area(s)			
Fabaceae	Lupinus	huachucanus	Huachuca Mountain lupine			CNF Sensitive					Southeastern Arizona and Sonora, Chihuahua, and Durango, Mexico. Known from Santa Rita, Huachuca, and Chiricahua mountains in Arizona. Elevation range 5,000 to 7,600 feet (AGFD, 2001c).	Canyon bottoms, roadsides, and moderate to steep slopes in pine and oak-pine forests (AGFD, 2001c).	None. The analysis area, including the portion within CNF, is outside the known geographic and elevational range of this species and lacks pine or oak-pine forest habitat.
Fabaceae	Lupinus	lemmonii	Lemmon's lupine			CNF Sensitive					Nevada, Arizona, southwestern New Mexico, and Sonora, Mexico. Known from Baboquivari, Santa Catalina, Galiuro, Dragoon, and Chiricahua mountains in southeastern Arizona and Peloncillo Mountains in southwestern New Mexico. Elevation range 4,848 to 8,600 feet (SEINet, 2012).	Collected in gravelly canyon bottoms and on disturbed slopes of dry pinyon-juniper through pine woodlands (SEINet, 2012).	None. The analysis area, including the portion within CNF, is within the known geographic range of this species but is below its known elevational limit and lacks pinyon-juniper woodland habitat.
Fabaceae	Lysiloma	watsonii	Littleleaf false tamarind				State Protected Species (Pima) Salvage Restricted				Southern Arizona in the Rincon Mountains in Pima County, Chihuahua, Sonora, and northern Sinaloa, Mexico. Elevation range 2,800 to 4,750 feet (AGFD, 2005p).	Arizona upland desertscrub and desert grasslands on rocky hillsides and slopes of creeks and tributaries (AGFD, 2005p).	Possible. The analysis area is within the known geographic and elevational range for this species and may contain suitable desertscrub or grassland habitat.
Fabaceae	Astragalus	cobrensis var. maguirei	Copper mine milk vetch (Maguire milkvetch)		BLM Sensitive (Las Cruces)						Collected only once in New Mexico in Peloncillo Mountains (NMRPTC, 1999a). Elevation range 5,500 to 7,000 feet (NMRPTC, 1999a).	Dry creek beds, banks, canyon sides, generally dry, open slopes with oaks, juniper, and pine (NMRPTC, 1999a).	None. The analysis area is outside the known geographic and elevational range of this species and lacks wooded habitat.
Fabaceae	Desmodium	metcalfei	Metcalfe's tick-trefoil			CNF Sensitive					Arizona, New Mexico, and Sinaloa, Mexico. Known from Cochise, Coconino, Gila, Pinal, Santa Cruz, and Yavapai counties in Arizona and Grant and Sierra counties in New Mexico. Elevation range 4,000 to 6,500 feet (NMRPTC, 2009).	Rocky slopes and canyons. Found within grasslands, oak-pinyon-juniper woodlands, and riparian forests (NMRPTC, 2009).	None. The portion of the analysis area within CNF is within the known geographic and elevational range of this species but lacks rocky slope or canyon habitat.
Fabaceae	Errazurizia	rotundata	Round-leaf dune broom (Round-leaf broom)		BLM Sensitive (Tucson Field Office)						Primarily in Little Colorado River drainage, but has been collected in Maricopa County in Arizona. Elevation range 4,620 to 5,200 feet (AGFD, 2005b).	Great Basin desertscrub with widely spaced shrubs. Rocky hilltops and ledges in sandy areas (AGFD, 2005b).	None. The analysis area is outside the known geographic range for this species and lacks Great Basin desertscrub habitat.

Table D-1. Special Status Plant Species (endangered, threatened, and sensitive) That Were Analyzed for Potential to Occur within the Analysis Area; FWS, Arizona, and New Mexico (Continued)

Group/Family	Genus	Species	Common Name	Federal Status			State Status		Local Status		Range	Habitat	Potential to Occur in Portions of the Analysis Area in which it is Listed as a Special Status Species
				ESA (County)	BLM (District)	USFS	Arizona (county)	New Mexico (County)	SDCP	Special Designation Area(s)			
Fabaceae	Coursetia	glabella	Smooth babybonnets			CNF Sensitive					Extreme southern Arizona and Chihuahua, Mexico. Known from Canelo Hills and Patagonia, Huachuca, and Chiricahua mountains in Arizona. Elevation range 5,000 to 7,200 feet (AGFD, 2001h).	Dry slopes with partial shade in Madrean oak woodlands, and oak-juniper and pine-oak forests (AGFD, 2001h).	None. The analysis area, including the portion within CNF, is outside the known geographic and elevational range of this species.
Gentianaceae	Gentianella	wislizeni	Chiricahua Mountain dwarf gentian (Wislizeni gentian)			CNF Sensitive, ANPPL Salvage Restricted	State Protected Species (Cochise)				Chiricahua and White mountains of Arizona, and Chihuahua and Sonora, Mexico. Elevation range 6,500 to 8,000 feet (ARPC, 2001).	Open meadows and partially shaded slopes in mixed conifer forests (ARPC, 2001).	None. The analysis area, including the portion within CNF, is outside the known geographic and elevational range of this species and lacks conifer forest habitat.
Iridaceae	Sisyrinchium	cernuum	Nodding blue-eyed grass			CNF Sensitive					Arizona and Sonora, Chihuahua, Baja California, Sinaloa, and Colima, Mexico. In Arizona, reported from San Francisco, Rincon, Santa Rita, Huachuca, Mule, and Chiricahua mountains. Elevation range 3,281 to 7,874 feet (SEINet, 2012).	Moist areas, meadows, and stream banks in woodland communities (SEINet, 2012).	None. The portion of the analysis area within CNF is within the known geographic and elevational range of this species but lacks moist habitat in woodland communities.
Lamiaceae	Salvia	amissa	Santa Catalina Mountain sage (Aravaipa sage)		BLM Sensitive (Tucson Field Office)						Limited to Galiuro, Superstition, and Sierra Ancha mountains and Eagle Creek near Morenci (AGFD, 2002a; SEINet, 2012). Elevation range 1,500 to 5,000 feet (AGFD, 2002a).	Floodplain terraces in shady canyons (BLM, 2010).	None. The analysis area is outside the known geographic range for this species and lacks floodplain terraces in shady canyon habitat.
Liliaceae	Triteleiopsis	palmeri	Palmer's bajalily (Blue sand lily)				State Protected Species (Pima) Salvage Restricted				Pinta Sands, Agua Dulce and Gila mountains, Baja California, and Sonora, Mexico. Elevation range from sea level to 1,600 feet (ARPC, 2001).	Loose dunes and sandy desert flats (ARPC, 2001).	None. The analysis area is outside the known geographic and elevational range of this species.

Table D-1. Special Status Plant Species (endangered, threatened, and sensitive) That Were Analyzed for Potential to Occur within the Analysis Area; FWS, Arizona, and New Mexico (Continued)

Group/Family	Genus	Species	Common Name	Federal Status			State Status		Local Status		Range	Habitat	Potential to Occur in Portions of the Analysis Area in which it is Listed as a Special Status Species
				ESA (County)	BLM (District)	USFS	Arizona (county)	New Mexico (County)	SDCP	Special Designation Area(s)			
Liliaceae	Allium	glandulosum	Gland onion				State Protected Species (Pima) Salvage Restricted				Southeastern Arizona and northern Mexico. Mule, Huachuca and Galiuro Mountains, and Canelo Hills in Arizona. Elevation range 3,150 to 6,830 feet (SEINet 2013).	Mountainous, cool regions, primarily in pine forests (Kearney and Peebles 1960). Also oak/juniper grasslands (SEINet 2013).	Unlikely. The analysis area is outside the reported geographic range of this species and lacks suitable habitat. However, this species has been reported within 3 miles of the agency alternative WC1a and local alternative Ga in Arizona (AGFD-HDMS 2013), although the general area of the reported location (Township/Range 14S24E) consists mostly of playa, alkalai flats, and semi-desert grasslands, and does not fit the reported habitat requirements.
Liliaceae	Allium	gooddingii	Goodding's onion	Conservation Agreement (USFWS 1997) (Pima)							White Mountains in Apache County and Santa Catalina Mountains in Pima County, Arizona (AGFD 1999a; AGFD, 2004i). Elevation range 7,500 to 11,250 feet (USFWS, 2012b).	Inhabits shaded sites on north-trending drainages, on slopes, or in narrow canyons, within mixed conifer and spruce-fir forests (USFWS, 2012b).	None. The analysis area is below the known elevation range for this species and does not have mixed conifer or spruce-fir forest habitat.
Liliaceae	Zigadenus	virescens	Green death camas				State Protected Species (Cochise) Salvage Restricted				Arizona and New Mexico border, southwestern Colorado, and Mexico. Elevation range 3,280 to 10,500 feet (FNA, 2012q).	Montane coniferous forests (FNA, 2012q).	None. The analysis area lacks suitable montane coniferous forests.
Liliaceae	Lilium	parryi	Lemon lily			CNF Sensitive, ANPPL Salvage Restricted	State Protected Species (Cochise, Pima) Highly safeguarded				Southeastern Arizona, California, and Sonora, Mexico. Known from Huachuca, Chiricahua, and Santa Rita mountains in Arizona. Elevation range 5,500 to 7,800 feet (ARPC, 2001).	Sandy, saturated soils high in organic content. Found in shady canyon bottoms along perennial stream or near hillside springs (ARPC, 2001).	None. The analysis area, including the portion within CNF, is outside the known geographic and elevational range of this species and lacks montane canyon habitat with perennial water.
Liliaceae	Allium	plummerae	Tanners canyon onion (Plummer onion)				State Protected Species (Pima) Salvage Restricted				Southeastern Arizona and northern Mexico. Baboquivari, Chiricahua, and Huachuca mountains in Arizona. Elevation range 4,800 to 9,000 feet (AGFD, 2005g).	Wet meadows, stream banks, and montane, rocky slopes (AGFD, 2005g).	None. The analysis area is outside the known geographic range of this species and lacks moist habitat.

Table D-1. Special Status Plant Species (endangered, threatened, and sensitive) That Were Analyzed for Potential to Occur within the Analysis Area; FWS, Arizona, and New Mexico (Continued)

Group/Family	Genus	Species	Common Name	Federal Status			State Status		Local Status		Range	Habitat	Potential to Occur in Portions of the Analysis Area in which it is Listed as a Special Status Species
				ESA (County)	BLM (District)	USFS	Arizona (county)	New Mexico (County)	SDCP	Special Designation Area(s)			
Liliaceae	Allium	rhizomatum	Gland onion (Redflower onion)				State Protected Species (Cochise) Salvage Restricted				Southeastern Arizona, southwestern New Mexico, and western Texas. In Arizona, known from Chiricahua, Huachuca, and Mule mountains in Cochise County and Canelo Hills in Santa Cruz County. Elevation range 4,400 to 7,000 feet (AGFD, 2004aa).	Along streams and near moist rocky places in grasslands and juniper-oak woodlands (AGFD, 2004aa).	None. The analysis area is outside the known geographic range of this species and lacks moist habitat in juniper-oak woodlands.
Malvaceae	Abutilon	parishii	Parish's Indian mallow (Pima Indian mallow)		BLM Sensitive (Tucson Field Office)	CNF Sensitive	State Protected Plant (Pima, Pinal)				Present in about 17 desert ranges of Central Arizona (BLM, 2010; AGFD, 2000e). Elevation range 1,700 to 4,900 feet (AGFD, 2000e).	Mesic situations in full sun within higher elevation Sonoran desertscrub. On rocky hillsides, cliff bases, canyon bottoms, lower side slopes and ledges of canyons among rocks and boulders. Slopes can exceed 45° (AGFD, 2000e).	Possible. The analysis area is within geographic and elevational range of this species and may contain suitable desertscrub habitat. This species has been observed within 3 miles of the proposed route in Arizona (AGFD HDMS 2013).
Malvaceae	Abutilon	thurberi	Thurber Indian mallow				State Protected Species (Pima)				Known from the western slope of the Baboquivari Mountains in Pima County, Arizona. Also known from Sonora, Mexico. Recorded at an elevation of 3,500 feet (ARPC, 2001).	Shaded areas of canyons in Arizona upland desertscrub (ARPC, 2001).	None**.** The analysis area may contain suitable desertscrub habitat, but is outside the highly restricted known range of this species.
Orchidaceae	Hexalectris	spicata var. arizonica	Arizona coralroot			CNF Sensitive	State Protected Species (Cochise) Salvage Restricted				Cochise, Santa Cruz, and Pima counties, Arizona. Elevation range 3,480 to 6,950 feet (AGFD, 2005e).	On wooded sides of canyons and canyon bottoms in oak or mixed oak-conifer woodlands. Grows in heavy leaf litter under oaks, pines, and associated shrubs (AGFD, 2005e).	None. The portion of the analysis area within CNF is within the known geographic and elevational range of this species but lacks well-developed oak woodland habitat with heavy leaf litter.
Orchidaceae	Listera	convallarioides	Broadlipped twayblade (Broadleaf twayblade)				State Protected Species (Pima) Salvage Restricted				Widely distributed in North America. Disjunct presence in Arizona in Apache, Coconino, and Pima (Santa Catalina Mountains) counties. Elevation range 7,000 to 8,600 feet (AGFD, 2005n).	Mixed deciduous or coniferous forests in rich humus in open areas or boggy meadows. Perennial stream banks or seeps in damp soils. Circumneutral or mildly acidic soils (AGFD, 2005n).	None. The analysis area is outside the known geographic and elevational range for this species and lacks deciduous and coniferous forest habitat.
Orchidaceae	Spiranthes	delitescens	Reclusive lady's tresses (Canelo Hills ladies' tresses)	Endangered (Cochise)			State Protected Species (Cochise) Highly safe guarded				Known from only five sites in Cochise and Santa Cruz counties in the San Pedro watershed (USFWS, 2001). Elevation range 4,000 to 5,000 feet (USFWS, 2012a; AGFD, 2000a).	Inhabits finely grained, highly organic, saturated soils of cienegas, intermixed with grasses and sedges (USFWS, 2012a).	None. The proposed Project is outside the highly restricted known geographic range for this species

Table D-1. Special Status Plant Species (endangered, threatened, and sensitive) That Were Analyzed for Potential to Occur within the Analysis Area; FWS, Arizona, and New Mexico (Continued)

Group/Family	Genus	Species	Common Name	Federal Status			State Status		Local Status		Range	Habitat	Potential to Occur in Portions of the Analysis Area in which it is Listed as a Special Status Species
				ESA (County)	BLM (District)	USFS	Arizona (county)	New Mexico (County)	SDCP	Special Designation Area(s)			
Orchidaceae	Hexalectris	spicata	Spiked crested coralroot (Crested coral root)				State Protected Species (Cochise, Pima) Salvage Restricted	NM Endangered			Widely distributed in North America. Disjunct presence in Arizona in Apache, Coconino, and Pima (Santa Catalina Mountains) counties. Elevation range 7,000 to 8,600 feet (AGFD, 2005n).	Mixed deciduous or coniferous forests in rich humus in open areas or boggy meadows. Perennial stream banks or seeps in damp soils. Circumneutral or mildly acidic soils (AGFD, 2005n).	None. The analysis area is outside the known geographic and elevational range for this species and lacks deciduous and coniferous forest habitat.
Orchidaceae	Schiedeella	arizonica	Parasitic lady's tresses (Fallen ladies'-tresses)				State Protected Species (Cochise, Pima) Salvage Restricted				Throughout southwestern United States. Found in southeastern Arizona. Elevation range 6,450 to 9,300 feet in Arizona (AGFD, 2005q).	Mesic, mixed, coniferous-deciduous forest in heavy forest duff along flat to very steep terrain within rocky or bare soils (AGFD, 2005q).	None. The analysis area is below elevational range for this species and lacks coniferous-deciduous forest habitat.
Orchidaceae	Cypripedium	parviflorum var. pubescens	Greater yellow lady's slipper (Golden lady's slipper)					NM Endangered (Grant)			Widespread in the United States and Canada. In New Mexico, found in Catron, Grant, Los Alamos, San Juan, and Santa Fe counties. In Arizona, found in the White Mountains in Apache and Greenlee counties (NatureServe, 2011).	Forested wetlands, including bogs, swamps, and wet meadows (NatureServe, 2011).	None. The analysis area may be within the known geographic range of this species, but lacks forested wetland habitat.
Orchidaceae	Malaxis	corymbosa	Huachuca Mountain adder's-mouth orchid (Madrean adders mouth)				State Protected Species (Cochise) Salvage Restricted				Santa Rita, Huachuca, and Chiricahua mountains in Arizona. Elevation of 6,500 feet (FNA, 2012k).	Shaded mountain canyons (FNA, 2012k).	None. The analysis area is outside the known geographic and below the elevational range for this species and lacks shaded canyon habitat.
Orchidaceae	Stenorrhynchos	michuacanum	Michuacan lady orchid (Michoacan ladies'-tresses)				State Protected Species (Cochise) Salvage Restricted				Santa Catalina and Huachuca mountains of Arizona and Chisos and Chinati mountains of Texas. Elevation range 6,235 to 7,220 feet (FNA, 2012j).	Grassy slopes in pine-oak woodlands. Areas with seepage (FNA, 2012j).	None. The analysis area is outside the known geographic range and above the elevation range for this species and lacks pine-oak woodland habitat.
Orchidaceae	Malaxis	porphyrea	Cochise adder's-mouth orchid (Purple adders mouth)				State Protected Species (Cochise) Salvage Restricted				Catalina, Chiricahua, Huachuca, and Santa Rita mountains and Apache County in Arizona. Also in New Mexico, Texas, and northern Mexico. Elevation range 7,000 to 9,200 feet (ARPC, 2001).	Mixed conifer forest. Slightly damp, grassy, or mossy areas (ARPC, 2001).	None. The analysis area is outside the elevational range of this species and lacks coniferous forest habitat.
Orchidaceae	Malaxis	tenuis	Arizona adder's-mouth orchid (Slender adder's mouth)				State Protected Species (Cochise, Pima) Salvage Restricted				Santa Catalina and Chiricahua mountains in Arizona (SEINet, 2012).	Mixed conifer forest. Slightly damp, grassy, or mossy areas (ARPC, 2001).	None. The analysis area is outside the elevational range for this species and lacks coniferous forest habitat.

Table D-1. Special Status Plant Species (endangered, threatened, and sensitive) That Were Analyzed for Potential to Occur within the Analysis Area; FWS, Arizona, and New Mexico (Continued)

Group/Family	Genus	Species	Common Name	Federal Status			State Status		Local Status		Range	Habitat	Potential to Occur in Portions of the Analysis Area in which it is Listed as a Special Status Species
				ESA (County)	BLM (District)	USFS	Arizona (county)	New Mexico (County)	SDCP	Special Designation Area(s)			
Orchidaceae	Hexalectris	warnockii	Texas crested coralroot (Texas purple-spike coralroot)		BLM Sensitive (Tucson, Safford Field Offices)	CNF Sensitive, ANPPL Salvage Restricted					Western Texas, New Mexico, southeastern Arizona, and Baja California, Mexico. Known from Chiricahua, Mule, and Huachuca mountains in Arizona. Elevation range 5,000 to 7,000 feet (AGFD, 2001g).	Humus soil under leaf litter in shady canyon bottoms. Occurs in oak-mixed-conifer communities (AGFD, 2001g).	None. The analysis area is outside the known geographic and elevational range of this species and lacks suitable oak-mixed conifer habitat.
Orchidaceae	Platanthera	limosa	Thurber's bog orchid				State Protected Species (Pima, Cochise) Salvage Restricted				Southeastern Arizona and Southwestern New Mexico. Elevation range 5,900 to 8,200 feet (FNA, 2012n).	Marshes, stream banks, and seeps in lightly forested areas (FNA, 2012n).	None. The analysis area is outside the elevation range of this species and lacks wet areas within forested habitats.
Poaceae	Puccinellia	parishii	Bog alkali grass (Parish's alkali grass)		BLM Sensitive (Las Cruces District)			NM Endangered (Hidalgo, Grant)			Found in Catron, Cibola, Grant, Hidalgo, McKinley, Sandoval, and San Juan counties in New Mexico. Elevation range 2,600 to 7,200 feet (NMRPTC, 1999f).	Alkali springs, seeps, and seasonally wet areas usually at heads of drainages (NMRPTC, 1999f).	Possible. The analysis area is within the known geographic range for this species and may contain suitable moist habitat.
Poaceae	Muhlenbergia	palmeri	Southwestern muhly			CNF Sensitive					Southeastern Arizona. Known from Canelo Hills and Baboquivari, Santa Catalina, Santa Rita, Pajarito, and Huachuca mountains. Elevation range 2,750 to 6,000 feet (AGFD, 2000d).	Cliffs and rocky slopes in canyons and along streams. Occurs in riparian communities within upland desertscrub, semi-desert grassland, and evergreen woodland environments (AGFD, 2000d).	None. The portion of the analysis area within CNF is within the known geographic and elevational range of this species, but lacks cliffy habitat in riparian communities.
Poaceae	Paspalum	virleti	Virlet paspalum			CNF Sensitive					Southern Arizona and Sonora, Mexico. In Arizona, known from Brawley Wash, Pima County and Pajarito Mountains, Santa Cruz County. Elevation range 2,600 to 3,851 feet in Arizona (SEINet, 2012).	Recorded along canyon bottom in oak-juniper woodland and in thorn scrub in rocky mountainsides (SEINet, 2012).	None. The analysis area, including the portion within CNF, is outside the known geographic range of this species and lacks oak-juniper woodland or thorn scrub habitat.
Polemoniaceae	Polemonium	pauciflorum ssp. hinckleyi	Hinckley's polemonium			CNF Sensitive					Southeastern Arizona, West Texas, and Nuevo Leon, Mexico. In Arizona, known from eight sites in the Chiricahua Mountains (NatureServe, 2011).	Moist, humus soil along streams in shady canyons. Found in oak-juniper through pine-fir forests (NatureServe, 2011).	None. The portion of the analysis area within CNF is outside of the known geographic range of this species and lacks suitable forest habitat near streams.
Polygalaceae	Polygala	rimulicola var. mescalerorum	Mescalero milkwort (San Andres milkwort)					NM Endangered (Luna)			Restricted to San Andres Mountains of Doña Ana County, New Mexico. Elevation range 5,700 to 6,300 feet (NMRPTC, 1999g).	Found in crevices of sandy limestone cliffs in montane scrub (NMRPTC, 1999g).	None. The analysis area is outside the highly restricted known geographic range of this species and lacks montane scrub habitat.

Table D-1. Special Status Plant Species (endangered, threatened, and sensitive) That Were Analyzed for Potential to Occur within the Analysis Area; FWS, Arizona, and New Mexico (Continued)

Group/Family	Genus	Species	Common Name	Federal Status			State Status		Local Status		Range	Habitat	Potential to Occur in Portions of the Analysis Area in which it is Listed as a Special Status Species
				ESA (County)	BLM (District)	USFS	Arizona (county)	New Mexico (County)	SDCP	Special Designation Area(s)			
Polygonaceae	Rumex	orthoneurus	Chiricahua Mountain dock (Blumer's dock)			CNF Sensitive, ANPPL Salvage Restricted	State Protected Species (Cochise) Salvage Restricted				Eastern Arizona and western New Mexico. In Arizona, known from Mogollon Rim and Sierra Ancha, White, Huachuca, and Chiricahua mountains. Elevation range 4,480 to 9,660 feet (AGFD, 2002b).	Moist, organic soils near perennial springs or streams in mid- to high-elevation wetlands (AGFD, 2002b).	None. The analysis area, including the portion within CNF, is within the known geographic range of this species but lacks mid- to high-elevation wetland habitat.
Polygonaceae	Eriogonum	ericifolium var. ericifolium	Yavapai County buckwheat (Heartleaf wild-buckwheat)			CNF Sensitive					Endemic to a small area of central Arizona (Yavapai and Coconino Counties). One specimen collected at Cienega Creek in Pima County (AGFD, 2005s). Elevation range 2,950 to 6,300 feet (AGFD, 2005s).	Dry, gravelly to rocky slopes of lacustrine, in mixed grasslands, chaparral and oak-woodlands (AZGFD, 2005s).	None. The portion of the corridor within CNF is outside the reported geographic range of this species. This species has been reported within 3 miles of the proposed route in Pima County (AGFD-HDMS 2013), but the location of this specimen is far from the portion of the corridor with CNF, and may represent a different variety (AGFD, 2005s).
Polygonaceae	Eriogonum	capillare	San Carlos wild-buckwheat				State Protected Species (Cochise, Pima, Pinal) Salvage Restricted				Cochise, Graham, Gila, and Pinal counties of Arizona. Elevation range 1,960 to 4,400 feet (AGFD, 2003g; 2004ad).	Disturbed, unstable, gravelly areas free from competition. Hill slopes and washes (AGFD, 2003g).	Possible. The analysis area is within the geographic range of this species and suitable habitat may be present. No specimens from analysis area (SEINet, 2012), but this species is known to be present within 2 miles of the Proposed Upgrade Section and within 3 miles of the New Build Section (AGFD, 2012b; 2012c).
Polygonaceae	Eriogonum	terrenatum	San Pedro River wild-buckwheat		BLM Sensitive (Tucson, Safford Field Offices)						Two disjunct populations in Pima and Cochise counties, elevation range 3,520 to 3,914 feet (AGFD, 2006e).	Occurs on limestone and clay soils of St. David Formation in the San Pedro River National Conservation Area (BLM, 2010). Found in gravelly soils in *Larrea tridentata* and *Acacia constricta* communities (AGFD, 2006e).	Possible. The analysis area is within the geographic and elevation range of this species. Most likely to be present near San Pedro River and Cienega Creek in Segments U2 and U3, respectively. This species has been reported within 3 miles of the proposed route in Arizona (AGFD-HDMS 2013).

Table D-1. Special Status Plant Species (endangered, threatened, and sensitive) That Were Analyzed for Potential to Occur within the Analysis Area; FWS, Arizona, and New Mexico (Continued)

Group/Family	Genus	Species	Common Name	Federal Status			State Status		Local Status		Range	Habitat	Potential to Occur in Portions of the Analysis Area in which it is Listed as a Special Status Species
				ESA (County)	BLM (District)	USFS	Arizona (county)	New Mexico (County)	SDCP	Special Designation Area(s)			
Portulacaceae	Phemeranthus (Talinum)	parvulus (marginatum)	Tepic flame flower			CNF Sensitive, ANPPL Salvage Restricted	State Protected Species (Cochise) Salvage Restricted				Huachuca Mountains, Arizona, and Sonora, Chihuahua, Durango, and Nayarit, Mexico. Elevation range 5,000 to 7,000 feet (ARPC, 2001).	Shallow pockets of sandy soil on exposed bedrock terraces and ledges in pine-oak forest communities (AGFD, 2004x; ARPC, 2001).	None. The analysis area, including the portion within CNF, is outside of the known geographic and elevational range of this species and lacks suitable pine-oak forest habitat.
Primulaceae	Samolus	vagans	Chiricahua Mountain brookweed			CNF Sensitive					Southeastern Arizona and Sonora, Chihuahua, and Durango, Mexico. Within Arizona, reported from the Santa Catalina, Rincon, Santa Rita, Pajarito, Huachuca, Mule, and Chiricahua mountains. Elevation range 5,300 to 6,000 feet (SEINet, 2012).	Recorded at perennial springs and streams in oak-juniper through pine-oak forests (SEINet, 2012).	None. The analysis area, including the portion within CNF, is within the known geographic range of this species but lacks forest habitat near perennial water.
Psilotaceae	Psilotum	nudum	Whisk fern				State Protected Species (Pima) Highly safeguarded				Southeastern Arizona, southeastern United States, Mexico, and Central America. Elevation range 0 to 3,610 feet in Arizona (FNA, 2012o).	Mesic woodlands, thickets, rocky slopes, swamps, and hammocks (FNA, 2012o).	None. The analysis area is within the geographic and elevation rage for this species but lacks wet areas in mesic woodlands.
Roseaceae	Vauquelinia	californica ssp. sonorensis	Sonora rosewood (Arizona Sonoran rosewood)		BLM Sensitive (Tucson Field Office)						In Arizona, restricted to Ajo Mountains of Pima County and Sand Tank Mountains of Maricopa County. Elevation range 2,300 to 3,700 feet (AGFD, 2005d).	Sonoran desertscrub and desert grassland on moderate to steep slopes (AGFD, 2005d). Appendix V.1. United States Fish and Wildlife Service list of sensitive plant species known to occur within the Project region, including information on geographic range, habitat, and potential occurrence within the analysis area.	None. The analysis area is outside the highly restricted known geographic range of this species.
Roseaceae	Potentilla	rhyolitica var. chiricahuensis	Chiricahua cinquefoil			CNF Sensitive					Endemic to upper elevations of the Chiricahua Mountains (USDA-FS, 2007).	Rocky openings in mixed conifer forests (USDA-FS, 2007).	None. The analysis area, including the portion within CNF, is outside the highly restricted known geographic range of this species and lacks mixed conifer forest habitat.

Table D-1. Special Status Plant Species (endangered, threatened, and sensitive) That Were Analyzed for Potential to Occur within the Analysis Area; FWS, Arizona, and New Mexico (Continued)

Group/Family	Genus	Species	Common Name	Federal Status			State Status		Local Status		Range	Habitat	Potential to Occur in Portions of the Analysis Area in which it is Listed as a Special Status Species
				ESA (County)	BLM (District)	USFS	Arizona (county)	New Mexico (County)	SDCP	Special Designation Area(s)			
Roseaceae	Potentilla	rhyolitica var. rhyolitica	Huachuca cinquefoil			CNF Sensitive					Endemic to the summit areas of the Huachuca and Santa Rita mountains (USDA-FS, 2007).	Crevices of rhyolitic and quartzitic outcrops (USDA-FS, 2007).	None. The analysis area, including the portion within CNF, is outside the highly restricted known geographic range of this species and lacks suitable high-elevation outcrop habitat
Roseaceae	Vauquelinia	californica ssp. pauciflora	Arizona rosewood (Limestone Arizona rosewood)				State Protected Species (Cochise) Salvage Restricted				Arizona and New Mexico border, southwestern Colorado, and Mexico. Elevation range 3,280 to 10,500 feet (FNA, 2012q).	Montane coniferous forests (FNA, 2012q).	None. The analysis area lacks suitable montane coniferous forests.
Roseaceae	Crataegus	wootoniana	Wooton's hawthorn		BLM Sensitive (Las Cruces District)						Limited to Piños Altos and Sacramento mountains. Elevation range 6,500 to 8,000 feet (NMRPTC, 1999b).	Canyon bottoms and forest understory in lower montane coniferous forest (NMRPTC, 1999b).	None. The analysis area is outside of the highly restricted known geographic range of this species and lacks montane coniferous forest habitat.
Saxifragaceae	Heuchera	glomerulata	Chiricahua Mountain alumroot (Arizona alum root)			CNF Sensitive					Pinal, Pinaleño, Santa Theresa, Galiuro, Santa Catalina and Chiricahua mountains in Arizona and Animas Peak in New Mexico. Elevation range 4,000 to 9,000 feet (AGFD, 2004s).	Found in humus soil on shaded, north-facing, rocky slopes near seeps and streams (AGFD, 2004s).	None. The portion of the analysis area within CNF is within the known geographic and elevational range of this species but lacks seep and stream habitat.
Scrophulariaceae	Penstemon	alamosensis	Los Alamos beardtongue (Alamo beardtongue)		BLM Sensitive (Las Cruces District)						In New Mexico, limited to west slope of Sacramento Mountains and east slope of San Andres Mountains. Elevation range 4,300 to 5,300 feet (NMRPTC, 1999d).	Sheltered rocky areas, canyon sides and bottoms, on limestone (NMRPTC, 1999d).	None. The analysis area is outside the highly restricted known geographic range for this species.
Scrophulariaceae	Penstemon	discolor	Catalina beardtongue			CNF Sensitive	State Protected Species (Pima, Pinal) Highly safeguarded				Atascosa, Dragoon, Galiuro, Santa Catalina, Santa Teresa, and Winchester mountains of Arizona. Elevation range 4,400 to 7,200 feet (ARPC, 2001).	Chaparral, pine-oak woodland in bedrock outcrops. Granite or volcanic tuff substrate (ARPC, 2001).	None. The analysis area is within the geographic and elevation range for this species but lacks pine-oak woodland habitats.
Scrophulariaceae	Limosella	pubiflora	Chiricahua Mountain mudwort (Chiricahua mudwort)			CNF Sensitive					Cochise County, Arizona, and extreme southwestern Hidalgo County, New Mexico (NMRPTC, 1999h).	Muddy edges of streams and ponds (NMRPTC, 1999h).	None. The portion of the analysis area within CNF may be within the known geographic range of this species, but it is below the known elevational range and lacks stream or pond habitat.

Table D-1. Special Status Plant Species (endangered, threatened, and sensitive) That Were Analyzed for Potential to Occur within the Analysis Area; FWS, Arizona, and New Mexico (Continued)

Group/Family	Genus	Species	Common Name	Federal Status			State Status		Local Status		Range	Habitat	Potential to Occur in Portions of the Analysis Area in which it is Listed as a Special Status Species
				ESA (County)	BLM (District)	USFS	Arizona (county)	New Mexico (County)	SDCP	Special Designation Area(s)			
Scrophulariaceae	Scrophularia	macrantha	New Mexico figwort (Mimbres figwort)		BLM Sensitive (Las Cruces District)						Known only from Mimbres Mountains, Kneeling Nun, and Cook's Peak in New Mexico. Elevation range 6,500 to 8,200 feet (NMRPTC, 2008).	Steep, rocky, igneous cliffs and talus slopes that are north-facing within pinyon-juniper and lower montane coniferous forests (NMRPTC, 2008).	None. The analysis area is outside the known geographic and elevation range for this species and lacks forested habitat.
Scrophulariaceae	Castilleja	nervata	Trans-Pecos Indian paintbrush			CNF Sensitive					Arizona, and Sonora, Chihuahua, Sinaloa and Colima, Mexico. Known from White, Santa Rita, and Chiricahua mountains in Arizona (SEINet, 2012). Elevation range 2,461 to 7,546 feet (NatureServe, 2011).	Rocky slopes in pine-oak through pine-fir woodlands (NatureServe, 2011).	None. The analysis area, including the portion within CNF, is within the known geographic and elevational range of this species, but lacks pine-fir woodland habitat.
Solanaceae	Physalis	latiphysa	Broadleaf ground cherry *()*			CNF Sensitive, ANPPL Salvage Restricted					Southeastern Arizona. Known from the San Bernardino Valley in Cochise County, the Pinaleño Mountains in Graham County, Arivaca Creek in Pima County, and the Santa Cruz River in Santa Cruz County. Elevation range 3,000 to 4,700 feet (AGFD, 2012b).	Granitic, gravelly soils in washes in the shade of shrubs and boulders within desertscrub and grasslands (AGFD, 2012b).	Possible**.** The portion of the analysis area within CNF is within the known geographic and elevational range of this species and may contain suitable grassland habitat. This species has been reported within 2 miles of the Upgrade Section within Pima County (AGFD 2012b).
Sterculiaceae	Fremontodendron	californicum	California's flannel bush (Flannel bush)				State Protected Species (Pinal) Salvage Restricted				Central Arizona, California, Baja California, Mexico. Elevation range 3,500 to 6,500 feet in Arizona (AGFD, 2005j).	Chaparral and oak-pine woodlands on well drained rocky hillsides and ridges in Arizona. Northern slopes. Dry, poor, rocky soils and granite boulders (AGFD, 2005j).	None. The analysis area is outside the known geographic range for this species and lacks oak-pine woodlands.
Thelypteridaceae	Thelypteris	puberula var. sonorensis	Sonoran maiden fern (Aravaipa woodfern)		BLM Sensitive (Tucson Field Office)						Several disjunct populations at springs, closest of which are in Aravaipa Canyon of Pinal County and Santa Catalina Mountain of Pima County. Elevation range 2,220 to 4,500 feet (AGFD, 2004o).	Moist soils within shade of mesic canyons on riverbanks, seepage areas, and meadow habitats (AGFD, 2006m).	None. The analysis area is outside the known geographic range for this species and lacks moist shady canyon habitat.
Violaceae	Viola	umbraticola	Ponderosa violet (Shade violet)			CNF Sensitive					Southern Arizona and Sonora and Chihuahua, Mexico. In Arizona, known from Santa Catalina, Santa Rita, Huachuca, and Chiricahua mountains. Elevation range 5,200 to 7,500 feet in Arizona (AGFD, 2004z).	Shady canyon bottoms in oak-juniper through ponderosa pine forests (AGFD, 2004z).	None. The analysis area, including the portion within CNF, is outside the known geographic and elevational range of this species and lacks oak-juniper to ponderosa pine forest habitat.

Table D-2. Arizona and New Mexico Noxious Weed Lists

Species Common Name	Scientific Name	Arizona			New Mexico			
		Prohibited Species	Regulated Species	Restricted Species	NM Class A	NM Class B	NM Class C	Watch List Species
African rue (Syrian rue)	*Peganum harmala*	x				x		
Alfombrilla Lightningweed)	*Drymaria arenariodes*	x			x			
Alligator weed	*Alternanthera philoxeroides*	x						
Anchored water hyacinth	*Eichhornia azurea*	x						
Austrian fieldcress	*Rorippa austriaca*	x						
Black henbane	*Hyoscyamus niger*				x			
Branched broomrape	*Orobanche ramosa*	x						
Buffelgrass	*Cenchrus ciliaris*	x	x					
Bull thistle	*Cirsium vulgare*						x	
Burclover	*Medicago polymorpha*	x	x					
Camelthorn	*Alhagi pseudalhagi*	x		x	x			
Canada thistle	*Cirsium arvense*	x			x			
Carolina horsenettle	*Solanum carolinense*	x						
Cheatgrass	*Bromus tectorum*						x	
Chicory	*Cichorium intybus*					x		
Common purslane	*Portulaca oleracea*	x	x					
Creeping wartcress (Coronopus)	*Coronopus squamatus*	x						
Crimson fountaingrass	*Pennisetum setaceum*							x
Dalmation toadflax	*Linaria dalmatica*	x		x	x			
Diffuse knapweed	*Centaurea diffusa*	x		x	x			
Dodder	*Cuscuta* spp.	x		x				
Dudaim melon (Queen Anne's melon)	*Cucumis melo*	x						
Dyer's woad	*Isatis tinctoria*	x			x			
Eurasian watermilfoil	*Myriophyllum spicatum*				x			
Field bindweed	*Convolvulus arvensis*	x	x					

Table D-2. Arizona and New Mexico Noxious Weed Lists (Continued)

Species Common Name	Scientific Name	Arizona			New Mexico			
		Prohibited Species	Regulated Species	Restricted Species	NM Class A	NM Class B	NM Class C	Watch List Species
Field sandbur	*Cenchrus incertus*	x	x					
Floating water hyacinth	*Eichhornia crassipes*	x	x	x				
Giant cane	*Arundo donax*							x
Giant salvinia	*Salvinia molesta*	x	x		x			
Globed-podded hoary cress (Whitetop)	*Cardaria draba*	x		x				
Hairy whitetop	*Cardaria pubescens*	x						
Halogeton	*Halogeton glomeratus*	x		x		x		
Hoary cress	*Cardaria* spp.				x			
Hydrilla (Florida-elodea)	*Hydrilla verticillata*	x			x			
Iberian starthistle	*Centaurea iberica*	x						
Jointed goatgrass	*Aegilops cylindrica*	x		x			x	
Leafy spurge	*Euphorbia esula*	x			x			
Lens podded hoary cress	*Cardaria chalepensis*	x						
Malta starthistle	*Centaurea melitensis*					x		
Meadow knapweed	*Centaurea pratensis*							x
Morning glory [*All species except Ipomoea carnea, Mexican bush morning glory; Ipomoea triloba, three-lobed morning glory (which is considered a restricted pest); and Ipomoea aborescens, morning glory tree*]		x						
Musk thistle	*Carduus nutans*					x		
Oxeye daisy	*Leucanthemum vulgare*				x			
Pampas grass	*Cortaderia sellonana*							x
Parrotfeather	*Myriophyllum aquaticum*				x			
Perennial pepperweed	*Lepidium latifolium*					x		
Perennial sowthistle	*Sonchus arvensis*	x						

Table D-2. Arizona and New Mexico Noxious Weed Lists (Continued)

Species Common Name	Scientific Name	Arizona			New Mexico			
		Prohibited Species	Regulated Species	Restricted Species	NM Class A	NM Class B	NM Class C	Watch List Species
Plumeless thistle	*Carduus acanthoides*	x						
Poison hemlock	*Conium maculatum*					x		
Puna grass	*Stipa brachychaeta*	x						
Puncturevine	*Tribulus terrestris*	x	x					
Purple loosestrife	*Lythrum salicaria*				x			
Purple starthistle	*Centaurea calcitrapa*	x			x			
Quackgrass	*Elytrigia repens*	x		x				x
Ravenna grass	*Saccharum ravennae*				x			
Rush skeletonweed	*Chondrilla juncea*	x						
Russian knapweed	*Acroptilon repens*	x		x		x		
Russian olive	*Elaeagnus angustifolia*						x	
Sahara mustard	*Brassica tournefortii*							x
Saltcedar	*Tamarix* spp.						x	
Scotch thistle	*Onopordum acanthium*	x		x	x			
Serrated tussock	*Nassella trichotoma*	x						
Siberian elm	*Ulmus pumila*						x	
Sicilian starthistle	*Centaurea sulphurea*	x						
Southern sandbur	*Cenchrus echinatus*	x	x					
Spiny cocklebur	*Xanthium spinosum*							x
Spotted knapweed	*Centaurea biebersteinii*	x		x	x			
Squarrose knapweed	*Centaurea squarrosa*	x						
Sweet resinbush	*Euryops subcarnosus* subsp. *vulgaris*	x		x				
Tansy ragwort	*Senecio jacobaea*	x						
Teasel	*Dipsacus fullonum*					x		
Texas blueweed	*Helianthus ciliaris*	x		x				

Table D-2. Arizona and New Mexico Noxious Weed Lists (Continued)

Species Common Name	Scientific Name	Arizona			New Mexico			
		Prohibited Species	Regulated Species	Restricted Species	NM Class A	NM Class B	NM Class C	Watch List Species
Three-lobed morning glory	*Ipomoea triloba*	x		x				
Torpedo grass	*Panicum repens*	x						
Tree of heaven	*Ailanthus altissima*					x		
Tropical soda apple	*Solanum viarum*	x						
Wall rocket	*Diplotaxis tenuifolia*							x
Water-chestnut	*Trapa natans*	x						
Witchweed	*Striga* spp.	x						
Yellow starthistle (St. Barnaby's thistle)	*Centaurea solstitialis*	x		x	x			
Yellow toadflax	*Linaria vulgaris*				x			
Arizona Noxious Weed Classes (Data last updated April 2012)								
Prohibited Species: Prohibited from entry into Arizona								
Regulated Species: Controlled or quarantined to prevent further infestation or contamination.								
Restricted Species: Quarantined to prevent further infestation or contamination.								
New Mexico Noxious Weed Classes (Data last updated April 2009)								
Class A Species: Not currently present in New Mexico or have a limited distribution								
Class B Species: Limited to portions of New Mexico								
Class C Species: Widespread control measures are encouraged								
Watch List: Potentially problematic								

Table D-3shows scientific and common names of plant species observed along various routes, segments and alternatives reported in this appendix, table D-1 and table D-2. Taken from a report titled "Southline Transmission Project Resource Report 15: Vegetation" (CH2M Hill 2013a).

Table D-3. Observed Plant Species within the Southline Transmission Project

Common plant species observed during limited field evaluation, alphabetically by genus and species. No species-specific surveys were conducted.

Scientific Name	Common Name
Acacia constricta	Whitethorn acacia
Acacia greggii	Catclaw acacia
Agave palmeri	Palmer's agave
Ambrosia deltoidea	Triangle-leaf bursage
Atriplex canescens	Fourwing saltbush
Baccharis salicifolia	Seepwillow
Baccharis sarothroides	Desert broom
Carnegiea gigantea	Saguaro
Cenchrus ciliaris	Buffelgrass
Chilopsis linearis	Desert willow
Cirsium sp.	Thistle
Condalia ericoides	Javelina bush
Condalia warnockii	Warnock's condalia
Dasylirion wheeleri	Sotol
Encelia farinosa	Brittlebush
Ephedra sp.	Mormon tea
Erodium cicutarium	Filaree
Ferocactus spp.	Barrel cactus
Flourensia cernua	Tarbush
Fouquieria splendens	Ocotillo
Gutierrezia sarothrae	Broom snakeweed
Hilaria mutica	Tobosagrass
Isocoma tenuisecta	Burroweed
Juniperus sp.	Juniper
Koerberlinia spinosa	Crown of thorns
Larrea tridentata	Creosotebush
Lycium sp.	Wolfberry
Opunita engelmannii	Engelmann prickly pear
Opuntia fulgida	Chainfruit cholla
Opuntia macrocentra	Long-spined purple prickly pear
Opuntia spinosior	Cane cholla
Nolina microcarpa	Beargrass
Panicum obtusum	Vine mesquite grass
Parkinsonia microphylla	Foothill paloverde

Table D-3. Observed Plant Species within the Southline Transmission Project (Continued)

Common plant species observed during limited field evaluation, alphabetically by genus and species. No species-specific surveys were conducted.

Scientific Name	Common Name
Prosopis glandulosa	Honey mesquite
Prosopis velutina	Velvet mesquite
Rhus virens var. *coriophylla*	Evergreen sumac
Rumex hymenosepalus	Canaigre
Salix gooddingii	Goodding's willow
Salsola tragus	Russian thistle
Senecio sp.	Senecio
Sporobolus wrightii	Big sacaton
Tamarix sp.	Tamarisk
Vachellia vernicosa	Viscid acacia
Yucca baccata	Banana yucca
Yucca elata	Soaptree yucca
Ziziphus obtusifolia	Graythorn

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Appendix E

FEDERAL ENDANGERED SPECIES ACT LISTED SPECIES IN THE ANALYSIS AREA

Table E-1. Potential for Occurrence of Federal Endangered Species Act Listed, Proposed, and Candidate Species in the Analysis Area

Species Common Name (Scientific [Latin] Name)	Species Group	Federal Status							State Status		Local Status		Species and Range	Habitat	Potential to Occur in Portions of the Analysis Area in which It Is Listed as a Special Status Species
		ESA (County)	MBTA	BLM (Field Office/District)	USFS Douglas District of CNF	BCC	BMC	BGEPA	SCGN	NM	SDCP	Special Designation Area(s)			
Arizona treefrog (Huachuca/Canelo Distinct Population Segment) (*Hyla wrightorum*)	Amphibian	Candidate (Cochise)			MIS								In Arizona, this small frog is known from north of Mogollon Rim and, disjunctly, in the Huachuca Mountains and Canelo Hills of southeastern Arizona (FWS 2008aa). Elevations range from 5,000 to 8,500 feet (FWS 2013a).	In Arizona, found in Madrean oak woodland and savannah, pine-oak woodland, and mixed conifer forest (FWS 2008aa).	None. The proposed Project and all action alternatives are distant from the known populations of this species in the Huachuca and Canelo Mountains.
Chiricahua leopard frog (*Lithobates* [*Rana*] *chiricahuensis*)	Amphibian	Threatened (Grant, Hidalgo, Luna, Greenlee, Graham, Cochise, Pima)							AGFD Tier 1a, NMDGF		PVS	Designated Critical Habitat; not within Project ROW	The northern population of this small ranid frog extends from central Arizona east and southward along Mogollon Rim while southern population is in the mountains and valleys south of the Gila River in the southeastern part of the State (AGFD 2011aa). In New Mexico, it is most abundant in Gila and San Francisco River drainages (BISON-M 2012ad). Elevations range from 3,300 to 8,900 feet (FWS 2013a).	Springs, streams in upper portions of watersheds, and livestock tanks free from non-native predators or in marginal habitats (FWS 2013a).	Unlikely. While the proposed Project crosses through the geographical range of the species, it does not cross perennial water that has the potential to support this species.
Sonoran tiger salamander (*Ambystoma mavortium stebbinsi*)	Amphibian	Endangered (Cochise)			MIS				AGFD Tier 1a				In Arizona, this salamander is known from San Rafael Valley of Santa Cruz County (AGFD 2010aa). Elevations range from 4,000 to 6,300 feet (FWS 2013a).	Stock tanks and impounded cienegas, rodent burrows, rotted logs, and other moist cover sites (AGFD 2003aa).	None. The proposed Project and all action alternatives are distant from the known populations of this species.
Cactus ferruginous pygmy-owl (*Glaucidium brasilianum cactorum*)	Bird	Delisted/Petitioned for listing/Under Review (Pima, Pinal)	Yes	Gila	Sensitive				AGFD Tier 1a		PVS		South-central Arizona, primarily in Pima County. No records from Cochise County (AGFD 2012aa). Elevations below 4,000 feet (FWS 2013b).	Resident of desert woodlands with tall canopy cover. Primarily found in Sonoran desertscrub and occasionally in riparian drainages and woodlands within semidesert grassland communities. Prefers to nest in cavities of saguaro cacti but has been found in low-density suburban developments that include natural open spaces (AGFD 2001ac).	Possible. The analysis area is within the typical range of the species and suitable habitat parameters may be present.
California least tern (*Sterna antillarum browni*)	Bird	Endangered (Pima)	Yes				Yes						Breeding documented in Maricopa County, while transient migrants have been recorded in Pima and Mojave counties, Arizona (FWS 2009aa). Elevations below than 2,000 feet (FWS 2013b).	Open, bare, or sparsely vegetated sand, sandbars, gravel pits, or exposed flats along shorelines of inland rivers, lakes, reservoirs, or drainage systems (FWS 2009aa).	Unlikely. Although suitable habitat parameters may be present, the analysis area is not within the species' typical range.

Table E-1. Potential for Occurrence of Federal Endangered Species Act Listed, Proposed, and Candidate Species in the Analysis Area (Continued)

Species Common Name (Scientific [Latin] Name)	Species Group	Federal Status							State Status		Local Status		Species and Range	Habitat	Potential to Occur in Portions of the Analysis Area in which It Is Listed as a Special Status Species
		ESA (County)	MBTA	BLM (Field Office/District)	USFS Douglas District of CNF	BCC	BMC	BGEPA	SCGN	NM	SDCP	Special Designation Area(s)			
Least tern (Interior population) (*Sterna antillarum*)	Bird	Endangered (Doña Ana)	Yes				Yes		NMDGF				Known to nest at or near Bitter Lake National Wildlife Reserve north of Roswell, New Mexico. Occasional migrant to Eddy County, New Mexico (BISON-M 2009ab).	Shallow water areas of rivers, streams, and lakes. Requires sandy and relatively open areas for nesting (BISON-M 2009ab).	Unlikely. Although suitable habitat parameters may be present, the analysis area is not within the species' typical range.
Masked bobwhite *(Colinus virginianus ridgewayi*)	Bird	Endangered (Pima)					Yes		AGFD Tier 1a				This bird species has been re-introduced to the Buenos Aires National Wildlife Refuge in the Altar Valley near the Arizona and Mexico border (AGFD 2012aa) at elevations range from 1,000 to 4,000 feet (FWS 2013b).	Desert grasslands with diversity of dense native grasses, forbs, and brush (FWS 2013b).	None. The proposed Project and all action alternatives are distant from the known populations of this species.
Mexican spotted owl (*Strix occidentalis lucida*)	Bird	Threatened (Grant, Hidalgo, Cochise, Pima, Pinal)	Yes				Yes		AGFD Tier 1a, NMDGF			Designated Critical Habitat; not within Project ROW	Patchily distributed in forested areas throughout most of Arizona (AGFD 2004ah). Occurs statewide in New Mexico (BISON-M 2010ag). Elevations range from 4,100 to 9,000 feet (FWS 2012a). AGFD HDMS unpublished records show a range of 2,720 to 9,600 feet (AGFD 2005aa).	Nests in canyons and dense forests with multilayered foliage structure. Cool microclimates appear to be important (FWS 2012a). Adults may or may not leave their territories in the winter (FWS 2012a). Riparian forests may be important for movement (AGFD 2005aa).	None. The proposed Project and all action alternatives are distant from the known populations of this species and habitats in the Project ROW are not similar to those known to be used by this species.
Northern aplomado falcon (*Falco femoralis septentrionalis*)	Bird	Endangered/Experimental, Non-essential Population (Doña Ana, Grant, Hidalgo, Luna, Cochise)	Yes				Yes		AGFD Tier 1a, NMDGF	Endangered			This raptor is designated as a nonessential experimental population in Arizona and New Mexico (FWS 2013a). In Arizona, this species is extremely rare (AGFD 2001ab). In New Mexico, the few nests documented were in yucca grasslands (BISON-M 2010aa). Elevations range from 3,500 to 9,000 feet (FWS 2013a).	Grasslands and savannas (AGFD 2001ab). Nests in trees or tall shrubs in yucca grasslands in New Mexico (BISON-M 2010aa).	Possible. The analysis area is within the typical range of the species and suitable habitat parameters may be present.
Southwestern willow flycatcher (*Empidonax traillii extimus*)	Bird	Endangered (Doña Ana, Grant, Hidalgo, Luna, Greenlee, Graham, Cochise, Pima, Pinal)	Yes				Yes		AGFD Tier 1a, NMDGF	Endangered	PVS	Designated Critical Habitat; not within Project ROW	In Arizona, this bird is found in the middle to lower San Pedro River, along the Little Colorado, Gila, Verde, and Salt rivers (AGFD 2002aa, 2012aa). In New Mexico, this species is found statewide during migration (BISON-M 2012aa). Elevations below 8,500 feet (FWS 2013a).	Cottonwood/willow and tamarisk vegetation communities along rivers and streams (AGFD 2002aa).	Possible. The analysis area is within the typical range of the species and suitable habitat parameters may be present.

Table E-1. Potential for Occurrence of Federal Endangered Species Act Listed, Proposed, and Candidate Species in the Analysis Area (Continued)

Species Common Name (Scientific [Latin] Name)	Species Group	Federal Status							State Status		Local Status		Species and Range	Habitat	Potential to Occur in Portions of the Analysis Area in which It Is Listed as a Special Status Species
		ESA (County)	MBTA	BLM (Field Office/District)	USFS Douglas District of CNF	BCC	BMC	BGEPA	SCGN	NM	SDCP	Special Designation Area(s)			
Sprague's pipit (*Anthus spragueii*)	Bird	Candidate (Hidalgo, Cochise)	Yes			Yes	Yes, Focal		AGFD Tier 1b, NMDGF				Winters in grasslands of the San Rafael, Sonoita, and Sulphur Spring valleys in southeastern Arizona (AGFD 2010ab, 2012aa). Occasionally reported in extreme southwestern Hidalgo County, New Mexico (BISON-M 2011aa). Elevations below 5,000 feet (FWS 2013a).	Native grasslands with vegetation of intermediate height and lacking woody shrubs (FWS 2013a).	Possible. The analysis area is within the typical range of the species and suitable habitat parameters may be present.
Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*)	Bird	Proposed Threatened (Greenlee, Graham, Cochise, Pima, Pinal, Doña Ana, Grant, Hidalgo, Luna)	Yes		Sensitive	Yes	Yes		AGFD Tier 1a, NMDGF		PVS		All counties of Arizona but generally found in southern and central portions (AGFD 2011ab, 2012aa). Statewide in New Mexico (BISON-M 2011ab). Elevations below 6,500 feet (FWS 2013a, 2013c).	Large blocks of mature riparian woodlands (cottonwood, willow, or tamarisk galleries) (AGFD 2011ab).	Possible. The analysis area is within the typical range of the species and suitable habitat parameters may be present.
Whooping crane (*Grus americana*)	Bird	Endangered/Experimental, Non-essential Population (Doña Ana, Grant, Hidalgo, Luna)	Yes				Yes						Extirpated from Arizona (FWS 2013j). Occur in Bosque del Apache National Wildlife Refuge on Rio Grande River near Socorro New Mexico during the winter (BISON-M 2012ab). Elevation of approximately 4,500 feet (FWS 2013j).	This large bird is found in marshes, prairies, croplands, river bottoms and potholes (BISON-M 2010ab). Seasonally migrate from Canada to Texas following a 2,400 mile by 220 mile corridor (FWS 2012aa).	None. This species is not known to occur in the counties in which the Project ROW is located.
Yuma clapper rail (*Rallus longirostris yumanensis*)	Bird	Endangered (Pinal)	Yes				Yes		AGFD Tier 1a				This large marsh bird species is primarily found along the Colorado River from Yuma to Lake Mead. Also known from the Virgin, Bill Williams, and lower, Salt, Verde, and Gila Rivers. Populations along the Gila River may be migratory (FWS 2010a). Elevations below 4,500 feet (FWS 2013g).	Fresh water and brackish marshes with tall, dense emergent vegetation (FWS 2013g).	None. The proposed Project and all action alternatives are distant from the known populations of this species.
Apache (Arizona) trout (*Oncorhynchus gilae apache*)	Fish	Threatened (Greenlee, Graham)											This fish is restricted to streams in the upper Salt, Gila, Blue, and Little Colorado drainages in the White Mountains on the White Mountain Apache Indian Reservation and in the Apache-Sitgreaves National Forest (FWS 2008).	This fish is found in mixed-conifer forests and mountain meadows at elevations above 5,000 feet amsl in small, cold, high-gradient streams on substrates that consist of boulders, rocks, and gravel with some sand or silt (FWS 2008).	None. The proposed Project and all action alternatives are distant from the drainages from which this species is known.

Table E-1. Potential for Occurrence of Federal Endangered Species Act Listed, Proposed, and Candidate Species in the Analysis Area (Continued)

Species Common Name (Scientific [Latin] Name)	Species Group	Federal Status							State Status		Local Status		Species and Range	Habitat	Potential to Occur in Portions of the Analysis Area in which It Is Listed as a Special Status Species
		ESA (County)	MBTA	BLM (Field Office/District)	USFS Douglas District of CNF	BCC	BMC	BGEPA	SCGN	NM	SDCP	Special Designation Area(s)			
Beautiful shiner (*Cyprinella formosa*)	Fish	Threatened (Grant, Luna, Cochise)										Designated Critical Habitat; not within Project ROW	This small fish is found in the San Bernardino National Wildlife Refuge in extreme southeastern Arizona along the U.S. and Mexico border (AGFD 2004ai). Extirpated from New Mexico (BISON-M 2012ab). Elevations below 4,500 feet (FWS 2013a).	Small to medium sized streams and ponds with sand, gravel, and rock bottoms (AGFD 2001ad; FWS 2013a).	None. The proposed Project and all action alternatives are distant from the known populations of this species (more than 59 miles north of San Bernardino National Wildlife Refuge).
Chihuahua chub (*Gila nigrescens*)	Fish	Threatened (Grant)							NMDGF	Endangered			This fish is currently found in the Mimbres River of New Mexico between Allie Canyon and below Post Office in town of Mimbres, New Mexico (BISON-M 2009ad).The New Mexico population is limited mainly to the Archuleta/Moreno Spring along the Mimbres River.	Small to medium-sized streams in areas with cover including undercut banks, uprooted trees, or solid objects. Cienegas. In areas with adjacent rapid velocity flows (BISON-M 2009ad).	None. The proposed Project and all action alternatives are distant from the known populations of this species. The proposed Project crosses the Mimbres River near Deming New Mexico, more than 45 river miles downstream of the known populations.
Desert pupfish (*Cyprinodon macularius*)	Fish	Endangered (Graham, Cochise, Pima, Pinal)							AGFD Tier 1a		PVS	Designated Critical Habitat; not within Project ROW	One natural population exists in Arizona at Quitobaquito Spring in Pima County (FWS 2010b). Introduced populations are found in Cold **Springs in Graham County**, AD Wash in Yavapai County, and Finley Tank in Santa Cruz County (AGFD 2001ae, 2004aj). Historic range is more widespread. Refugia populations (9 in total) are found in private ponds and aquariums (AGFD 2001ae). Elevations below 4,000 feet (FWS 2013a). AGFD HDMS unpublished records show a range of 1,200 to 3,450 feet (AGFD 2001ae).	Inhabit shallow springs, small streams, and marshes. Tolerates saline and warm water (FWS 2013a).	None. The proposed Project and all action alternatives are distant from the known populations of this species.

Table E-1. Potential for Occurrence of Federal Endangered Species Act Listed, Proposed, and Candidate Species in the Analysis Area (Continued)

Species Common Name (Scientific [Latin] Name)	Species Group	Federal Status							State Status		Local Status		Species and Range	Habitat	Potential to Occur in Portions of the Analysis Area in which It Is Listed as a Special Status Species
		ESA (County)	MBTA	BLM (Field Office/District)	USFS Douglas District of CNF	BCC	BMC	BGEPA	SCGN	NM	SDCP	Special Designation Area(s)			
Gila chub (*Gila intermedia*)	Fish	Endangered (Grant, Greenlee, Graham, Cochise, Pima, Pinal)		Sensitive	MIS				AGFD Tier 1a, NMDGF	Endangered	PVS	Designated Critical Habitat; none within Project ROW	In Arizona, this fish is known from small springs or headwater streams serving as tributaries of Santa Cruz (Cienega Creek, Sabino Canyon, and Sheehy Spring) and San Pedro River (Bass, O'Donnell and Redfield Canyons, Babocomari River and Turkey Creek) drainages (AGFD 2002ac, 2012aa). In New Mexico, relict populations may exist in Mule and Turkey Creeks although they may have been extirpated from the State (BISON-M 2009ac). Elevation range from 2,000 to 5,500 feet (FWS 2013a). Arizona records show a range from 2,720 to 5,420 feet (AGFD 2002ac).	Pools, springs, cienegas, and streams. Common riparian plants associated with these populations include willow *(Salix* spp.), tamarisk *(Tamarix* spp.), cottonwoods *(Populus* spp.), seep-willow (*Baccharis glutinosa*), and ash *(Fraxinus* spp.). Typical aquatic vegetation includes watercress (*Nasturtium officianale*), horsetail *(Equisetum* spp.), rushes (*Juncus* spp.), and speedwell (*Veronica anagallis-aquatica*) (FWS 2008b, 2013a).	Unlikely. Although the analysis area is within the species' typical range, suitable habitat parameters are not present. Designated critical habitat for the species is located along Cienega Creek downstream (north) of the proposed Project.
Gila topminnow (*Poeciliopsis occidentalis*	Fish	Endangered (Grant, Cochise, Pinal)			MIS				AGFD Tier 1a, NMDGF	Threatened	PVS		This small fish was once very common throughout its range, now occurs in several localities in the Gila River drainage, and one locality in the Bill Williams River drainage in Arizona (AGFD 2001ah, 2012aa; FWS 2008d).This species has been reared and released at more than 200 sites. In New Mexico, this fish was re-introduced in the Red Rock Wildlife Management Area located 25 miles north of Lordsburg, New Mexico (BISON-M 2009ah). Elevations 3,500 to 6,500 feet (FWS 2013a).	Small streams, springs, and cienegas in vegetated shallows with aquatic vegetation and debris for cover. Can tolerate relatively high water temperatures and low dissolved oxygen. (FWS 2008d, 2013a).	Unlikely. Although the analysis area is within the species' typical range, suitable habitat parameters are not present.
Gila trout (*Oncorhynchus gilae gilae*)	Fish	Threatened (Grant, Greenlee)							AGFD Tier 1a, NMDGF	Threatened			This fish is found throughout the upper Gila drainage in New Mexico and historically in the Verde and Agua Fria drainages of Arizona (AGFD 2002af; BISON-M 2009ag). Introduced in Dude Creek, Arizona and currently inhabits 13 streams in New Mexico. Elevations range from 5,570 to 9,200 feet (BISON-M 2009ag).	Small, cool, clear mountain streams with vegetation cover (AGFD 2002af).	None The proposed Project and all action alternatives are distant from the known populations of this species. The proposed Project crosses the Mimbres River near Deming New Mexico, more than 50 river miles downstream of the known populations in McKnight Creek of the Mimbres River Basin.

Table E-1. Potential for Occurrence of Federal Endangered Species Act Listed, Proposed, and Candidate Species in the Analysis Area (Continued)

Species Common Name (Scientific [Latin] Name)	Species Group	Federal Status							State Status		Local Status		Species and Range	Habitat	Potential to Occur in Portions of the Analysis Area in which It Is Listed as a Special Status Species
		ESA (County)	MBTA	BLM (Field Office/District)	USFS Douglas District of CNF	BCC	BMC	BGEPA	SCGN	NM	SDCP	Special Designation Area(s)			
Headwater chub (*Gila nigra*)	Fish	Candidate (Grant, Graham)							AGFD Tier 1b, NMDGF	Endangered			This fish reaches a maximum size of about 12 inches and is endemic to the Gila River basin of Arizona and New Mexico in the middle and headwater reaches of middle-sized streams (AGFD 2010ac; BISON-M 2011ac). Known from 13 streams within Yavapai, Gila, and Graham counties of Arizona (FWS 2006aa). In New Mexico, populations are known in the Gila River mainstem above Mangus Creek confluence (AGFD 2004ak). Elevations range from 3,000 to 6,700 feet (FWS 2012d).	Medium-sized streams in large, deep pools often associated with cover such as undercut banks or deep places created by trees or rocks (FWS 2006aa).	None. The proposed Project and all action alternatives are distant from the known populations of this species.
Loach minnow (*Tiaroga cobitis*)	Fish	Endangered (Grant, Hidalgo, Greenlee, Graham, Cochise, Pinal)							AGFD Tier 1a, NMDGF	Endangered		Designated Critical Habitat; not within Project ROW	This small fish was once common throughout much of the Gila River system including portions of the Gila, Blue, Tularosa, White, Verde, Salt, San Pedro, and San Francisco rivers in Arizona and New Mexico, as well as some of their tributaries. Present populations are geographically isolated and inhabit the upstream ends of their historical range (FWS 2012ab) at elevations below 8,000 feet (FWS 2012ab).	Benthic species of small to large perennial streams with swift shallow water over cobble and gravel. Recurrent flooding and natural hydrography is important (UFSWS 2012ab).	None. The proposed Project and all action alternatives are distant from the known populations of this species.
Razorback sucker (*Xyrauchen texanus*)	Fish	Endangered (Pinal)							AGFD Tier 1a, NMDGF			Designated Critical Habitat; not within Project ROW	This large fish is found in Lake Mohave, Green River Basin and the Upper Colorado River Basin (AGFD 2002ag, 2012ac) at elevations below 6,000 feet (FWS 2009ab). Historically razorback suckers inhabited the Colorado, Gila, Salt, Verde, and San Pedro Rivers. Presently natural adult populations exist only in Lake Mohave, Lake Mead, and Lake Havasu.	Riverine and lacustrine areas, generally not in fast-moving water and may use backwaters (FWS 2009ab).	None. The proposed Project and all action alternatives are distant from the known populations of this species.
Rio Grande silvery minnow (*Hybognathus amarus*)	Fish	Endangered (Doña Ana)							NMDGF				This small fish currently occurs in the Rio Grande River from Cochiti Pueblo downstream to the inflow of Elephant Butte Reservoir in New Mexico (BISON-M 2009af).	Low-gradient, large streams with shifting sands or silty bottoms (BISON-M 2009af).	None. The proposed Project and all action alternatives are distant from the known populations of this species.

Table E-1. Potential for Occurrence of Federal Endangered Species Act Listed, Proposed, and Candidate Species in the Analysis Area (Continued)

Species Common Name (Scientific [Latin] Name)	Species Group	Federal Status							State Status		Local Status		Species and Range	Habitat	Potential to Occur in Portions of the Analysis Area in which It Is Listed as a Special Status Species
		ESA (County)	MBTA	BLM (Field Office/District)	USFS Douglas District of CNF	BCC	BMC	BGEPA	SCGN	NM	SDCP	Special Designation Area(s)			
Roundtail chub (*Gila robusta*)	Fish	Candidate (Grant, Hidalgo, Greenlee, Graham, Pinal)		Sensitive					AGFD Tier 1b, NMDGF	Endangered			In Arizona, this fish occurs in tributaries of the Little Colorado, Bill Williams, Salt, Verde, Gila (Eagle Creek), and San Pedro (Aravaipa Creek) rivers (AGFD 2002ad). Upper Gila River (San Francisco and Zuni rivers) and San Juan drainage and Animas River in New Mexico. Elevations range from 1,000 to 5,200 feet (BISON-M 2009ae).	Cool to warm waters of rivers and streams, often occupy the deepest pools and eddies of large streams. (FWS 2010c).	None. The proposed Project and all action alternatives are distant from the known populations of this species.
Spikedace (*Meda fulgida*)	Fish	Endangered (Grant, Hidalgo, Greenlee, Graham, Cochise, Pinal)			MIS				AGFD Tier 1a, NMDGF	Endangered		Designated Critical Habitat; not within Project ROW	This small fish occurs in Aravaipa Creek, Eagle Creek, upper Verde River system in Arizona, and the upper Gila River system in New Mexico (FWS 2012ad) at elevations below 6,000 feet (FWS 2013a).	Medium to large perennial streams with moderate to swift velocity waters over cobble and gravel substrate. Recurrent flooding and natural hydrograph important to withstand invading exotic species (FWS 2013a).	None. The proposed Project and all action alternatives are distant from the known populations of this species.
Yaqui catfish (*Ictalurus pricei*)	Fish	Threatened (Cochise)							AGFD Tier 1a			Designated Critical Habitat; not within Project ROW	This medium sized fish was extirpated from the US, a small population was re-introduced onto the San Bernardino National Wildlife Refuge in 1997 (FWS 2010d). Elevations range from 4,000 to 5,000 feet (FWS 2013a).	Moderate to large streams with slow current over sand and rock bottoms (FWS 2013a).	None. The proposed Project and all action alternatives are distant from the known populations of this species (more than 59 miles north of San Bernardino National Wildlife Refuge).
Yaqui chub (*Gila purpurea*)	Fish	Endangered (Cochise)							AGFD Tier 1a			Designated Critical Habitat; not within Project ROW	This fish is known from one artesian well in the San Bernardino Creek National Wildlife Refuge and were introduced in Lesley Creek in Leslie Canyon National Wildlife Refuge in Cochise County, Arizona (AGFD 2001af, 2012aa). Elevations range from 4,000 to 6,000 feet (FWS 2013a).	Deep pools of small streams near undercut bands and debris; pools associated with springheads, and artificial ponds (FWS 2013a).	None. The proposed Project and all action alternatives are distant from the known populations of this species.
Yaqui topminnow (*Poeciliopsis occidentalis sonoriensis*)	Fish	Endangered (Cochise)							AGFD Tier 1a				In Arizona, this small fish is known from the Rio Yaqui basin in the San Bernardino Wildlife Refuge (AGFD 2012aa; FWS 2010e), at elevations less than 4,500 feet (FWS 2013a).	Small to moderate-sized streams, springs, and cienegas. Generally found in shallow areas with aquatic vegetation or debris. Tolerates relatively high water temperatures and low dissolved oxygen (FWS 2013a).	None. The proposed Project and all action alternatives are distant from the known populations of this species.

Table E-1. Potential for Occurrence of Federal Endangered Species Act Listed, Proposed, and Candidate Species in the Analysis Area (Continued)

Species Common Name (Scientific [Latin] Name)	Species Group	Federal Status							State Status		Local Status		Species and Range	Habitat	Potential to Occur in Portions of the Analysis Area in which It Is Listed as a Special Status Species
		ESA (County)	MBTA	BLM (Field Office/District)	USFS Douglas District of CNF	BCC	BMC	BGEPA	SCGN	NM	SDCP	Special Designation Area(s)			
Cooke's Peak woodlandsnail (*Ashmunella macromphala*)	Invertebrate	Petitioned for listing/Under Review (Luna)		Sensitive						Threatened			This small terrestrial snail is found on talus slopes of Cooke's Peak on the Black Range north of the town of Deming, and in OK Canyon of New Mexico (BISON-M 2010ad). Elevations range from 6,900 to 7,000 feet (BISON-M 2010ad).	Inhabits edge of talus slopes surrounded by oak trees (BISON-M 2010ad).	None. The proposed Project and all action alternatives are distant from the known populations of this species (more than 12 miles south of Cooke's Peak).
Doña Ana talussnail (*Sonorella todseni*)	Invertebrate	Petitioned for Listing/Under Review (Doña Ana)		Sensitive					NMDGF	Threatened			This small terrestrial snail is known to be restricted to the Doña Ana Mountains north of Las Cruces, New Mexico (BISON-M 2010ah; FWS 2009ac). Elevations average 5,760 feet.	Talus in mountainous areas with live oaks and xeric-adapted shrubs (BISON-M 2010ah).	None. The proposed Project and all action alternatives are distant from the highly restricted range of this species.
Huachuca springsnail (*Pyrgulopsis thompsoni*)	Invertebrate	Candidate (Cochise)											This very tiny snail is found in Springs in southern Santa Cruz and Cochise Counties, Arizona, and Sonora, Mexico (AGFD 2007ab). Elevation range of 4,500-7,200 feet (FWS 2010f).	Found on firm substances in aquatic areas, small springs with vegetation and slow to moderate flows (FWS 2013a).	None. The proposed Project and all action alternatives are distant from the known populations of this species in southern Cochise County.
San Bernardino springsnail (*Pyrgulopsis bernardina*)	Invertebrate	Threatened (Cochise)							AGFD Tier 1b				This small snail is found in small seeps near San Bernardino Ranch in Arizona (AGFD 2006ac, 2007ab). Elevation of 3,806 feet (FWS 2013a).	Inhabits springs with firm substrate composed of cobble, gravel, woody debris, and aquatic vegetation (FWS 2013a).	None The proposed Project and all action alternatives are distant from the known populations of this species (more than 50 miles north of San Bernardino Ranch).
San Xavier talussnail (*Sonorella eremita*)	Invertebrate	Conservation Agreement (Pima)							AGFD Tier 1a			Conservation Area	This small terrestrial snail inhabits San Xavier Hill (White Hill) east of the town of San Xavier, Arizona (AGFD 2003ac). Elevations range from 3,850 to 3,920 feet (FWS 2013b).	Deep, northwest-facing limestone rockslides (FWS 2013b).	None. The proposed Project and all action alternatives are more than 10 miles from the known population of this species.
Wet Canyon talussnail (*Sonorella macrophallus*)	Invertebrate	Conservation Agreement (Graham)											Talus slopes in heavily vegetated area of Wet Canyon (Pinaleño Mountains) (FWS 2007).	Talus must be deep and largely free of excess sedimentation with stable moisture conditions. This species cannot be distinguished from other Sonorella species without dissection (FWS 2007).	None. The proposed Project and all action alternatives are distant from the highly restricted range of this species.
Black-footed ferret (*Mustela nigripes*)	Mammal	Endangered (Grant)							AGFD Tier 1a				In 1992, this small mammal was reportedly the rarest mammal species in North America, no known natural populations exist in Arizona or New Mexico (BISON-M 2011ad). Two re-introduction sites in Arizona (Aubrey Valley and Espee Ranch) and one in New Mexico (Vermejo Park Ranch) (FWS 2012ae).	Mixed shrub at lower elevations below the mesas. Associated with prairie dogs, there only known food source (BISON-M 2011ad).	None. This species is extremely rare, there are no known prairie dog colonies within the proposed Project, and the Project ROW is distant from any re-introduction sites.

Table E-1. Potential for Occurrence of Federal Endangered Species Act Listed, Proposed, and Candidate Species in the Analysis Area (Continued)

Species Common Name (Scientific [Latin] Name)	Species Group	Federal Status							State Status		Local Status		Species and Range	Habitat	Potential to Occur in Portions of the Analysis Area in which It Is Listed as a Special Status Species
		ESA (County)	MBTA	BLM (Field Office/District)	USFS Douglas District of CNF	BCC	BMC	BGEPA	SCGN	NM	SDCP	Special Designation Area(s)			
Jaguar (*Panthera onca*)	Mammal	Endangered (Hidalgo, Cochise, Pima)							AGFD Tier 1a, NMDGF			Proposed Critical Habitat; none in the Project ROW	The largest native cat to the Western Hemisphere, it historically is known from as far north as central Arizona, but currently known from Santa Rita, Baboquivari Mountains and the Peloncillo Mountains of Arizona. Rare in New Mexico (AGFD 2004av, 2012aa; FWS 2013a). Elevations range from 1,600 to 9,000 feet (FWS 2013a).	Found in Sonoran desertscrub up through subalpine conifer forest (FWS 2013a).	Unlikely. Although suitable habitat parameters may be present, the analysis area is not within the species' typical range. Proposed critical habitat for the jaguar would occur in route groups 2, 3 and 4. In route group 2, it would be 40 miles south of the proposed Project and all action alternatives, in route group 3 it would be 3 miles south, and in route group 4 it would be 5 miles south of proposed critical habitat.
Lesser long-nosed bat (*Leptonycteris curasoae yerbabuenae*)	Mammal	Endangered (Hidalgo, Greenlee, Graham, Cochise, Pima, Pinal)							AGFD Tier 1a, NMDGF	Threatened	PVS		This nectar feeding bat is found in central California, southern Arizona, and New Mexico (AGFD 2011ad, 2012aa). In New Mexico, this species is found in Guadalupe Canyon and Clanton Canyon of the Peloncillo Mountains and at OK Bar Ranch, Doubly Adobe Canyon, and Robertson Ranch in the Animas Mountains of extreme southwestern Hidalgo County (BISON-M 2012ac). Roosts are found in several sky island mountains in southeastern Arizona including Big Dragoon, Rincon, and Santa Catalina Mountains (AGFD 2012aa). Elevations range from 1,600 to 11,500 feet (FWS 2013a).	Desertscrub habitat with agave and columnar cacti present as food source. Roosts in caves and abandoned mines (FWS 2013a).	Possible. The analysis area is within the typical range of the species and suitable habitat parameters may be present.
Mexican gray wolf (*Canis lupus baileyi*)	Mammal	Endangered/Experimental, Non-essential Population (Grant, Hidalgo, Greenlee)							AGFD Tier 1a, NMDGF	Endangered			This wolf has been re-introduced into the Blue Range Wolf Recovery Area on the AZ/NM border (BISON-M 2010af). This species has been found historically in southeastern Arizona, New Mexico and West Texas, and south to Mexico (AGFD 2001aj). Elevations range from approx. 4,000 to 9,000 feet (BISON-M 2010af).	Forested and grasslands areas with an abundance of large prey (BISON-M 2010af).	Unlikely. Although the analysis area is within the dispersal distances of the species, no habitat suitable for wolf habitation is present. Any wolves present in the analysis area would be dispersing and the analysis area is not within the species' typical occupied range.

Table E-1. Potential for Occurrence of Federal Endangered Species Act Listed, Proposed, and Candidate Species in the Analysis Area (Continued)

Species Common Name (Scientific [Latin] Name)	Species Group	Federal Status							State Status		Local Status		Species and Range	Habitat	Potential to Occur in Portions of the Analysis Area in which It Is Listed as a Special Status Species
		ESA (County)	MBTA	BLM (Field Office/District)	USFS Douglas District of CNF	BCC	BMC	BGEPA	SCGN	NM	SDCP	Special Designation Area(s)			
Mexican long-nosed bat (*Leptonycteris nivalis*)	Mammal	Endangered (Hidalgo, Cochise)							NMDGF	Endangered	PVS		Roost sites for this bat are found in the Peloncillo and Chiricahua Mountains of western Hidalgo County, New Mexico as well as eastern Cochise County, Arizona. Elevations range from 4,600 to 6,200 feet (BISON-M 2010ac).	Caves and mines near ocotillo, yucca, agave, manzanita, oaks, and juniper (BISON-M 2010ac).	Possible. The analysis area is within the typical range of the species and suitable habitat parameters may be present.
Mount Graham red squirrel (*Tamiascurus hudsonicus grahamensis*)	Mammal	Endangered (Graham)											This rare squirrel's distribution is limited to higher elevation spruce-fir and old growth Douglas-fir forests in the Pinaleno Mountains (FWS 2013i).	Montane conifer forests from spruce-fir to mixed conifer (FWS 2013i).	None. The proposed Project is distant from the highly restricted range of this species.
New Mexico meadow jumping mouse (*Zapus hudsonius luteus*)	Mammal	Proposed Endangered (Greenlee)										Proposed Critical Habitat; none within Project ROW	This mouse is endemic to New Mexico, Arizona, and a small area of southern Colorado (FWS 2007a). In Arizona, populations occupy the White Mountains in southern Apache County and in northern Greenlee County. In New Mexico, they have been found in the San Juan, Sangre de Cristo, Jemez, and Sacramento Mountains, the Rio Grande Valley, and the lower Rio Chama Valley (FWS 2013l).	This small rodent nests in dry soils but uses moist, streamside, dense riparian/wetland vegetation from elevations ranging from 4,500 to 8,000 feet amsl, only using two riparian community types: persistent emergent herbaceous wetlands and scrub-shrub wetlands (riparian area along perennial streams that are composed of willows and alders.) Uses microhabitats of patches or stringers of tall dense sedges on moist soil along the edge of permanent water (FWS 2013l).	None. The proposed Project is distant from the mountains and valleys from which populations of this species are found.
Ocelot (*Leopardus* [*Felis*] *pardalis*)	Mammal	Endangered (Graham, Cochise, Pima, Pinal)							AGFD Tier 1a				This small cat species occurs within a limited region in the United States (remnant populations in southern Texas, and transient populations in southeastern Arizona). Present south to Argentina (AGFD 2010ae). Elevations below 8,000 feet (FWS 2013a).	Inhabits desertscrub of Arizona. Humid tropical forests and savannas in areas south of the U.S. (FWS 2013a).	Unlikely. Although suitable habitat parameters may be present, the analysis area is not within the species' typical range.
Sonoran pronghorn (*Antilocapra americana sonoriensis*)	Mammal	Endangered (Pima)					Yes		AGFD Tier 1a, NMDGF			Within the 10 (j) area for Sonoran pronghorn recovery	In southwestern Arizona, this large mammal is found in a small population, south of Interstate 8, west of Highway 85, and east of the Copper and Cabeza Prieta Mountains (AGFD 2002ah, 2004at) at elevations ranging from 2,000 to 4,000 feet (FWS 2013b).	Broad, intermountain, alluvial valleys with creosote-bursage and palo verde-mixed cacti associations (FWS 2013b).	None. The proposed Project is distant from the known populations of this species.

Table E-1. Potential for Occurrence of Federal Endangered Species Act Listed, Proposed, and Candidate Species in the Analysis Area (Continued)

Species Common Name (Scientific [Latin] Name)	Species Group	Federal Status							State Status		Local Status		Species and Range	Habitat	Potential to Occur in Portions of the Analysis Area in which It Is Listed as a Special Status Species
		ESA (County)	MBTA	BLM (Field Office/District)	USFS Douglas District of CNF	BCC	BMC	BGEPA	SCGN	NM	SDCP	Special Designation Area(s)			
New Mexico ridge-nosed rattlesnake (*Crotalus willardi obscurus*)	Reptile	Threatened (Hidalgo, Cochise)							AGFD Tier 1a, NMDGF	Endangered		Designated Critical Habitat; not within Project ROW	This rattlesnake is found in the Peloncillo Mountains of Arizona and New Mexico, and the Animas Mountains of New Mexico (AGFD 2001ak) in the extreme southwestern New Mexico and extreme southeastern Arizona (FWS 2002). Elevations range from 5,000 to 6,600 feet (FWS 2013a).	Canyon bottoms with pine-oak communities (FWS 2013a).	None. The proposed Project is more than 30 miles north of the known populations of this species.
Northern Mexican gartersnake (*Thamnophis eques megalops*)	Reptile	Proposed Threatened (Grant, Hidalgo, Graham, Cochise, Pima, Pinal)			Sensitive				AGFD Tier 1b	Endangered	PVS	Proposed Critical Habitat present at the crossings of the San Pedro River and Cienega Creek	This small semi-aquatic snake is likely extirpated from New Mexico and is likely extant in fragmented populations within the middle/upper Verde River drainage, middle/lower Tonto Creek, and the Cienega Creek drainage, as well as, a small number of isolated wetland habitats in southeastern Arizona (AGFD 2012ae; FWS 2013m). Elevations range from 130 to 8,500 feet (FWS 2013a).	Inhabits cienegas, stock tanks, large-river riparian woodlands and forests, streamside gallery forests (FWS 2013a).	Possible. The analysis area is within the typical range of the species and suitable habitat parameters may be present.
Sonoran desert tortoise (*Gopherus* [*agassizii*] *morafkai*)	Reptile	Candidate (Graham, Cochise, Pima, Pinal)			Sensitive						PVS		In Arizona, the Mojave population is present north and west of the Colorado River, the Sonoran population occurs south and east of the Colorado River (AGFD 2004ax, 2010ag). Elevations range from less than 7,800 feet (FWS 2013a).	Rocky (often steep) hillsides and bajadas of Mojave and Sonoran Desertscrub but may encroach into desert grassland, juniper woodland, interior chaparral habitats, and even pine communities. Washes and valley bottoms may be used in dispersal (FWS 2013a).	Possible. The analysis area is within the typical range of the species and suitable habitat parameters may be present.
Sonoyta mud turtle (*Kinosternon sonoriense longifermorale*)	Reptile	Candidate (Pima)							AGFD Tier 1a				This turtle occupies stream habitat at Quitobaquito Springs in Organ Pipe Cactus National Monument, Arizona and a few locations in nearby Rio Sonoyta of Sonora, Mexico (AGFD 2005ad). Elevation at Quitobaquito Springs is 1,100 feet (FWS 2013b).	Inhabits ponds and streams (FWS 2013b).	None. The proposed Project is distant from the known populations of this species.
Tucson shovel-nosed snake (*Chionactis occipitalis klauberi*)	Reptile	Candidate (Pima, Pinal)							AGFD Tier 1b		PVS		This small snake is restricted to south-central Arizona in Pima, western Pinal, and eastern Maricopa counties (AGFD 2010af, 2012aa). Known to occur west of Tucson northward along Avra Valley (AGFD 2010af). Elevations range from 785 to 1,662 feet (FWS 2013b).	Found in Sonoran desertscrub, in which it is associated with soft, sandy soils having sparse gravel (FWS 2010, 2013b).	Possible. The analysis area is within the typical range of the species and suitable habitat parameters may be present.

Table E-2. Potential for Occurrence of Federal Endangered Species Act Listed Species in Each Route Group and Alternatives

		Afton to Hidalgo			Hidalgo to Apache							Apache to Pantano		Pantano to Saguaro				
Species Common Name (Scientific [Latin] Name)	**Species Group**	**Proponent Preferred**	**Proponent's Alternative**	**DN1 Alternative**	**Proponent Preferred**	**Proponent's Alternative**	**LD1 Alternative**	**LD2 Alternative**	**LD3 Alternative**	**LD4 Alternative**	**WC1 Alternative**	**Proponent Preferred**	**Alternative H**	**Proponent Preferred**	**Proponent's Alternative**	**TH1 Alternative**	**TH3 Alternative**	**MA1 Alternative**
Mexican spotted owl (*Strix occidentalis lucida*)	Bird	None	None	None	None	None	None	None	None	None	None	Unlikely	None	None	None	None	None	None
Sonoran desert tortoise (*Gopherus* [*agassizii*] *morafkai*)	Reptile	None	None	None	Unlikely	Unlikely	None	None	None	None	None	Possible	Possible	Possible	N/A	Possible	Possible	Unlikely
Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*)	Bird	None	None	None	None	None	None	None	None	None	None	Possible	None	Possible	Possible	None	None	None
Northern Mexican gartersnake (*Thamnophis eques megalops*)	Reptile	None	None	None	None	None	None	None	None	None	None	Possible; proposed CH in the San Pedro River and Cienega Creek	Possible; proposed CH in the San Pedro River	None	None	None	None	None
Sprague's pipit (*Anthus spragueii*)	Bird	Possible	Possible	Possible	Possible	Possible	Unlikely	Possible	Possible	Possible	Possible	Possible	Possible	Unlikely	Unlikely	Unlikely	Unlikely	None
Cactus ferruginous pygmy-owl (*Glaucidium brasilianum cactorum*)	Bird	None	None	None	None	None	None	None	None	None	None	None	None	Possible	Possible	Possible	Possible	None
Southwestern willow flycatcher (*Empidonax traillii extimus*)	Bird	None	None	None	Possible	Possible	Unlikely	Unlikely	Unlikely	Unlikely	Unlikely	Possible	None	Possible	Possible	None	None	None
Lesser long-nosed bat (*Leptonycteris curasoae yerbabuenae*)	Mammal	None	None	None	Possible	Possible	Possible	Possible	Possible	Possible	Possible	Possible	Possible	Possible	Possible	None	None	None
Northern aplomado falcon (*Falco femoralis septentrionalis*)	Bird	Possible	Possible	Possible	Possible	Possible	Unlikely	Possible	Possible	Possible	None	None	None	None	None	None	None	None
Tucson shovel-nosed snake (*Chionactis occipitalis klauberi*)	Reptile	None	None	None	None	None	None	None	None	None	None	None	None	Unlikely	Unlikely	None	None	Unlikely
Ocelot (*Leopardus* [*Felis*] *pardalis*)	Mammal	None	None	None	Unlikely	Unlikely	Unlikely	Unlikely	Unlikely	None	None	Unlikely	None	Unlikely	Unlikely	None	None	None
Least tern (Interior population) (*Sterna antillarum*)	Bird	Unlikely	Unlikely	Unlikely	Unlikely	Unlikely	Unlikely	Unlikely	Unlikely	Unlikely	Unlikely	None	None	None	None	None	None	None
Gila chub (*Gila intermedia*)	Fish	None	None	None	None	None	None	None	None	None	None	Unlikely	None	Unlikely	Unlikely	None	None	None
Gila topminnow (*Poeciliopsis occidentalis occidentalis*)	Fish	None	None	None	None	None	None	None	None	None	None	Unlikely	None	Unlikely	Unlikely	None	None	None
Jaguar (*Panthera onca*)	Mammal	None	None	None	None	None	None	None	None	None	None	Unlikely	None	Unlikely	Unlikely	None	None	None
California least tern (*Sterna antillarum browni*)	Bird	None	None	None	None	None	None	None	None	None	None	None	None	Unlikely	Unlikely	None	None	None
Chiricahua leopard frog (*Lithobates* [*Rana*] *chiricahuensis*)	Amphibian	None	None	None	Possible	Possible	Unlikely	Unlikely	Unlikely	Unlikely	Unlikely	Unlikely	None	Unlikely	Unlikely	None	None	None

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Appendix F

NATIONAL SCENIC AND HISTORIC TRAILS ASSESSMENT

NATIONAL SCENIC AND HISTORIC TRAILS ASSESSMENT

INTRODUCTION

National Scenic Trails (NSTs) and National Historic Trails (NHTs) are part of the National Trails System, which is a network of scenic, historical, and recreational trails created by the National Trails System Act of 1968 (16 United States Code [USC] 1241–1251). NSTs and NHTs are authorized and designated only by Act of Congress. NSTs are continuous and uninterrupted extended trails more than 100 miles long, so located as to provide for maximum enjoyment of the nationally significant resources, qualities, values, and associated settings as the primary use or uses of the area through which such trails may pass. The use of motorized vehicles by the general public along any NST is prohibited (16 USC 1246). NSTs may provide non-motorized routes with outstanding recreational opportunities. NHTs commemorate historic routes of exploration, migration, trade, communication, and military action (National Park Service [NPS] 2013), and must meet three criteria: 1) follow as closely as possible the actual route of historic use, 2) be of national significance, and 3) have significant potential for public recreation and/interpretation opportunities (16 USC 1242).

NSTs and NHTs are formally administered by various federal agencies; however, land ownership may be public or private. To adhere to Bureau of Land Management (BLM) guidance for National Trails, this appendix focuses on the inventory and impact assessment of 1) congressionally designated National Trails, 2) trails undergoing National Trail Feasibility Study (trails under study), and 3) trails that are deemed suitable for designation, per BLM manuals 6250, 6280, and 8353. It should be noted that all National Trails were inventoried and reviewed based on National Environmental Policy Act (NEPA) requirements (i.e., equal level of analysis regardless of jurisdiction); however, the trails were evaluated using BLM methodology as outlined in Manual 6280. National trails were also evaluated in terms of individual resources, including biological, cultural, recreational, visual, and land use (see chapters 3 and 4 of the draft environmental impact statement [EIS]).

REGULATORY FRAMEWORK

Federal agencies must consider the effects of their actions on NSTs and NHTs under the NEPA and the National Trails System Act of 1968 (16 USC 1246). The law states that other uses along an NST or NHT that would not substantially interfere with the nature and purpose of the trail may be permitted by the Secretary charged with the administration of the trail. Reasonable efforts shall be made to provide sufficient access opportunities to such trails and, to the extent practicable, efforts shall be made to avoid activities incompatible with the purposes for which such trails were established (16 USC 1246). More specifically, the Secretary of the Interior, or the Secretary of Agriculture as the case may be, may grant easements and rights-of-way upon, over, under, across, or along any component of the National Trails System in accordance with the laws applicable to the National Park System and the National Forest System, respectively, provided that any conditions contained in such easements and rights-of-way shall be related to the policy and purposes of the National Trails System Act (16 USC 1248).

A designation as either an NST or NHT requires a two-step process: 1) Congressional authorization of a feasibility study, and 2) Congressional designation. While a trail is undergoing a National Trail Feasibility Study, or when a trail has been recommended as suitable for designation and Congress has not yet acted to designate the trail, the BLM shall manage the values, characteristics, and settings of the trail in accordance with the Federal Land Policy Management Act of 1976, as amended (FLPMA). Following congressional designation, the development of a trail comprehensive management plan (CMP) is required, which is used by various agencies in the development of land use planning documents (e.g., BLM Field

Office resource management plans [RMPs] and U.S. Forest Service [FS] land and resource management plans).

BLM implementation of the requirements established by the National Trails System Act can be found in the agency's National Trails System manual series—BLM Manuals 6250, 6280, and 8353 (BLM 2012a, 2012b, 2012c). These manuals provide administrative and management guidance.

- National Trails System Act of 1968
- *BLM Manual 6250 – National Scenic and Historic Trails Administration (Public)* addresses specific functions delegated to the BLM from the Secretary of the Interior pursuant to the National Trails System Act. Specifically, this manual describes how to conduct National Scenic or Historic Trail Feasibility Studies, how to administer an NST or NHT upon designation by Congress, and the responsibilities of National Scenic or Historic Trail administrators. This manual also identifies data and records management requirements.
- *BLM Manual 6280 – Management of National Scenic and Historic Trails and Trails Under Study or Recommended as Suitable for Congressional Designation (Public)* provides policies for the management of National Scenic and Historic Trails. Specifically, this manual identifies requirements for the management of trails undergoing National Trail Feasibility Study; trails that are recommended as suitable for National Trail designation through the National Trail Feasibility Study; inventory, planning, management, and monitoring of designated National Scenic and Historic Trails; and data and records management requirements for National Scenic and Historic Trails.
- *BLM Manual 8353 – Trail Management Areas – Secretarially Designated National Recreation, Water, and Connecting and Side Trails (Public)* addresses secretarially designated National Recreation Trails (including the National Water Trails) and Connecting and Side Trails, including requirements for cooperative relationships; trail marking; identifying, evaluating, and recommending trails; nominating trails through the submission of application packages; and data and records management.

For the purposes of NEPA and the Project-level analysis addressed in this EIS, BLM Manual 6280 served as the primary regulatory guidance (BLM 2012b). This manual describes the steps that are required to identify and manage NST and NHT resources within the broader regulatory framework governing BLM-administered lands. More specifically, BLM Manual 6280 provides policy direction regarding the BLM's management approach and the NEPA analysis requirements for congressionally designated trails and trails undergoing feasibility studies, and trails deemed suitable for designation.

As part of the NEPA analysis, for any implementation-level action proposed or that may potentially affect NSTs, NHTs, or trails under feasibility study, the BLM shall:

(i) For each alternative, describe and analyze the potential impacts to the nature and purposes of the National Trail, and the National Trail resources, qualities, values, and associated settings and the primary use or uses of the trail.

(ii) Describe the impacts to the national significance of National Trails, based on NHPA National Historic Landmark criteria and other National Trails System Act criteria, as well as impacts to the significance of properties that are eligible or listed on the National Register of Historic Places (NRHP), as applicable.

(iii) Ensure adequate public involvement in the BLM's management activities through the NEPA, land use planning, and/or other applicable processes.

(iv) Coordinate with the National Trail administering agency during the environmental review and land use planning processes regarding the establishment of the National Trail Management Corridor. It should be noted that no National Trail Management Corridors were established for the proposed Project in context with this appendix. However, a study corridor (analysis area) was developed to inventory and assess impacts to National Trails in terms of resource, values, qualities, and associated settings. The analysis area was established in consultation with the Trails "Stakeholder Group," which consisted of agency trail administrators, agency resource specialists, and public trail groups.

(v) To the greatest extent possible, consider opportunities for mitigation to a level commensurate with the adverse impact to the nature and purposes; resources, qualities, values, and associated settings; and the primary use or uses of the National Trail.

(vi) Include the following in the Decision Record or Record of Decision:

(a) Whether the proposed Project will substantially interfere or will be incompatible with the nature and purposes of the National Trail, including the resources, qualities, values, or associated settings, or the primary use or uses.

(b) A description of the action taken to authorize or deny an activity or the application of any best management practices or mitigation measures (BLM 2012b).

For trails under feasibility study, the NEPA analysis for the proposed Project will consider existing data, including data from the completed National Trail Feasibility Study (if available), data provided to the BLM by the agency conducting the National Trail Feasibility Study, or additional data collected as necessary for alternative formulation and analysis of the proposed Project (i.e., proposed Southline Transmission Line Project, herein called the Project). In evaluating whether to approve the proposed Project, the NEPA analysis will:

(i) Describe the values, characteristics, and settings of trails under study and trails recommended as suitable in the affected environment section of the NEPA document.

(ii) Analyze and describe any impacts of the proposed Project on the values, characteristics, and settings of trails under study or trails recommended as suitable.

(iii) Consider an alternative that would avoid adverse impacts to the values, characteristics, and settings of the trail under study or recommended as suitable and/or incorporate and consider applying design features to avoid adverse impacts.

(iv) When the proposed Project is anticipated to have a significant adverse impact, there must be coordination between the BLM State Office and the assigned National Trail Feasibility Study agency office. If the anticipated significant adverse impact cannot be avoided, the BLM State Office must contact the BLM Washington Office so that coordination with the study agency headquarters office can be initiated (BLM 2012b).

Other federal legislation or regulation applicable to NSTs and NHTs in the analysis area includes:

- *Federal Land Policy and Management Act of 1976, as amended* (43 USC 1701; Public Law [PL] 94-579). The FLPMA consolidates and articulates BLM management responsibilities and governs most uses of federal lands, including authorization to grant or renew rights-of-way. In accordance with the FLPMA, the BLM must make land use decisions based on principles of multiple use and sustained yield. As such, a grant of right-of-way (ROW) must be limited to its necessary use and must contain terms and conditions that reflect the agencies' management responsibilities under the FLPMA, including minimizing impacts on fish and wildlife habitat.

- *National Landscape Conservation System* (16 USC 7201–7203) was established in 2000 by a Department of Interior Secretarial Order, "in order to conserve, protect, and restore nationally significant landscapes that have outstanding cultural, ecological, and scientific values for the benefit of current and future generations." The National Landscape Conservation System was made permanent and codified in the Omnibus Public Land Management Act of 2009 (PL 111-11, Title II). The system includes the following areas administered by the BLM: National Monuments, National Conservation Areas, Wilderness, Wilderness Study Areas (WSAs), Wild and Scenic Rivers, National Scenic and Historic Trails, Cooperative Management and Protection Areas, Outstanding Natural Areas, and Forest Reserves.
- *The National Historic Preservation Act of 1966, as amended* (16 USC 470; 36 Code of Federal Regulations 800) directs federal agencies to take into account the effects of their actions on historic properties and/or unevaluated cultural resources and provide the Advisory Council on Historic Preservation a reasonable opportunity to comment.
- *BLM Manual 8400 – Visual Resource Management* outlines the system used by the BLM to manage visual resources on BLM-administered lands, and includes an inventory of existing scenic values as well as management objectives that define the allowable levels of disturbance or visual contrast.

ISSUES IDENTIFIED FOR ANALYSIS

As noted in the introduction, in order to adhere to BLM guidance for National Trails, this appendix focuses on the inventory and impact assessment of 1) congressionally designated National Trails, 2) trails undergoing National Trail Feasibility Study (trails under study) and, 3) trails that are deemed suitable for designation per BLM Manuals 6250, 6280, and 8353.

Based on a screening of these three elements, four trails are considered in this appendix. Beginning in the eastern portion of the analysis area and proceeding west, these include the Continental Divide National Scenic Trail, the Arizona National Scenic Trail, the Juan Bautista de Anza National Historic Trail, and the Butterfield Overland Mail and Stage Route (Butterfield Trail) (figures F-1 and F-2). It should be noted that the Butterfield Trail occurs in both the eastern and western portions of the analysis area.

National Scenic Trails

Continental Divide National Scenic Trail

The Continental Divide National Scenic Trail (CDNST) extends between the Montana–Canada and New Mexico–Mexico borders, roughly following the mountains that form a watershed divide between the Mississippi River drainage to the east, and rivers flowing to the Pacific to the west. Established in 1978, it was designated to provide a scenic, high-quality, and primitive experience along a continuous and appealing route through diverse terrain for travel by hikers and equestrians (FS 2009). At the time of its establishment, it was intended to mimic the scenic trail concept of the Appalachian Trail and Pacific Crest Trail, two previously created National Scenic Trails spanning major north-south cordilleras of the mainland United States. The CDNST crosses FS, BLM, State, and private lands through New Mexico. The CDNST crosses through the town of Lordsburg, New Mexico and the Interstate 10 (I-10) corridor within the Project analysis area between the Pyramid Mountains and the Big Burro Mountains, all within developed/rural areas. The Mimbres RMP includes management prescriptions for these areas of the CDNST that occur on BLM-managed lands.

Figure F-1. New Build Section National Trails System.

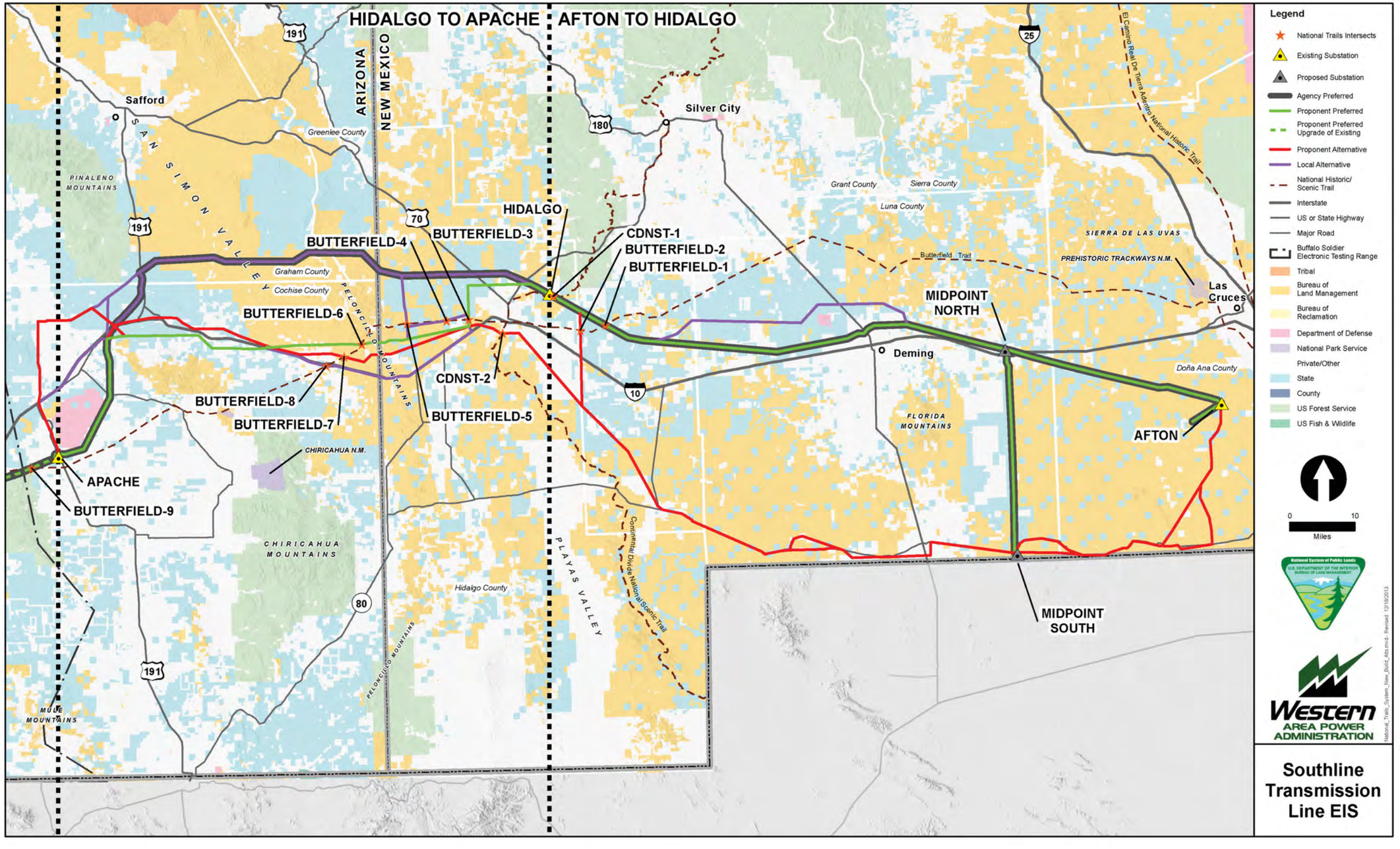
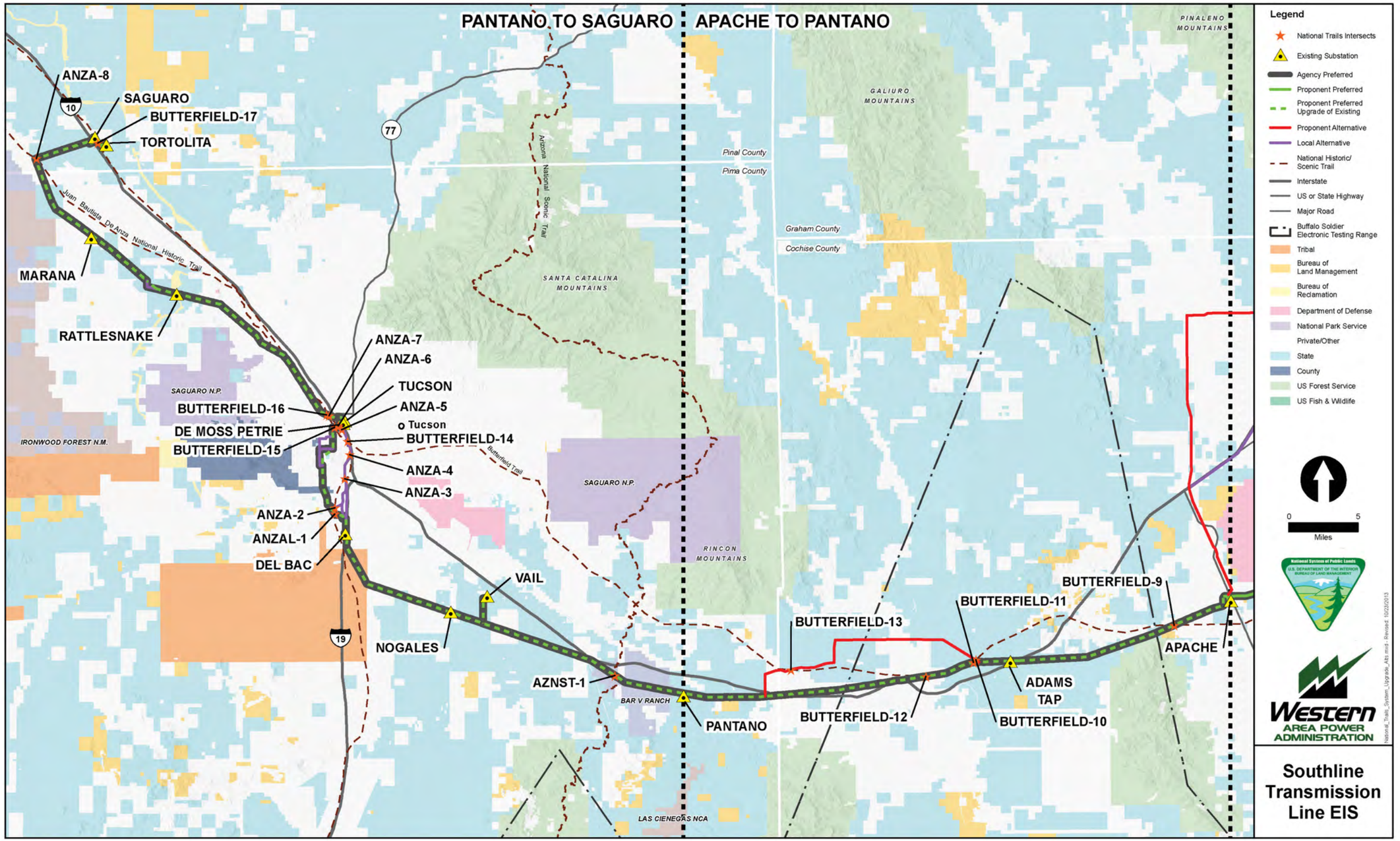


Figure F-2. Upgrade Section National Trails System.



Arizona National Scenic Trail

The Arizona National Scenic Trail (Arizona Trail) extends over 800 miles from the Utah–Arizona and Arizona–Mexico borders, across various ecosystems, terrain, and remote rural landscapes of the state. Conceptualized as the Arizona Trail by Dale Shewalter in the 1980s, the route of this trail was identified and constructed in the 1990s and early 2000s under the lead of Arizona State Parks, with funding from the U.S. Forest Service, BLM, and NPS. The trail was designated as an NST in 2009 and the administration of the trail was assigned to the U.S. Forest Service; the final links completing it from end to end were constructed in late 2012. While trail feasibility studies have been produced for many trails since 1968, including the CDNST, the Arizona Trail was exempted from this requirement due to 1) its location on primarily public land, 2) the fact that it was already established for much of its length, 3) its strong local, regional, and state advocates, and 4) its outstanding recreational opportunities.

A trailwide CMP must be developed by the lead agency for a congressionally designated National Trail. At this time, a CMP has yet to be developed for the Arizona Trail, and there is no lead agency identified. BLM manages approximately 45 miles of the Arizona Trail, all located outside of the analysis area. The trail crosses FS, BLM, NPS, State, and private lands from the Utah border to Mexico. It crosses the Project analysis area east of Tucson, at the I-10 corridor near Cienega Creek Natural Preserve between the Santa Rita and Rincon mountain ranges. The Arizona Trail is located on State and privately owned lands in this location and does not cross BLM land within the analysis area.

National Historic Trails

Juan Bautista de Anza National Historic Trail

The Juan Bautista de Anza National Historic Trail (Anza Trail) commemorates the route taken by Anza in 1775–1776, when he led a group of colonists from Mexico to found a presidio and mission for New Spain at San Francisco Bay. Established in 1990, this congressionally designated historic trail administered by the NPS is approximately 1,200 miles long, extending from Nogales, Arizona to San Francisco, California (NPS 1996). For lands outside NPS units, local land managers and property owners take the lead in implementing the trail and coordinate interpretation with the NPS. The Anza Trail is associated with the following three components:

- Historic Corridor—the historic path traveled by the expedition
- Recreational Trail—a modern recreational trail implemented by local land managers that generally parallels the historic trail corridor. Intended to be a continuous recreational trail from Nogales, Arizona to the San Francisco Bay Area
- Auto Tour Route—published and signed driving route that follows the historic corridor, connecting related historic sites

Only a small portion of the historic trail crosses federal land between Nogales and San Francisco. The trail primarily crosses private land in Arizona, with portions of the trail crossing BLM and State lands as the trail continues west to California. For the Project analysis area, the trail is generally located within the metropolitan area of Tucson along the Santa Cruz River, generally paralleling I-10 to the Project's terminus near the town of Marana, Arizona.

Trails Recommended as Suitable for National Trail Designation

Butterfield Overland Mail and Stage Route

Obtaining congressional approval in 2009, the Butterfield Trail is currently under feasibility study by the Secretary of the Interior (Sec. 7209 of PL 111-11). As such, the nature and purpose of the trail is not defined but would be consistent with the National Trails System Act, which provides "for outdoor recreation needs of an expanding population" and promotes "the preservation of, public access to, travel within, and enjoyment and appreciation of the open-air outdoor areas and historic resources of the nation." The proposed Butterfield Trail commemorates the routes pioneered by John Butterfield and the Butterfield Overland Stage Company as they traveled over the "ox-box route" between St. Louis, Missouri and Memphis, Tennessee, ending in San Francisco, California. Within the Project analysis area, the Butterfield Trail extends from Las Cruces, New Mexico through Marana, Arizona, crossing BLM, State, and private lands through Arizona and New Mexico. Although the alignment provided by the NPS is still under study, the trail crosses BLM land near Deming and Lordsburg, New Mexico. The Mimbres RMP includes management prescriptions for these areas of the Butterfield Trail that occur on BLM-managed lands.

ANALYSIS METHODOLOGY

Introduction

For the Southline Project, a detailed methodology to conduct Project analysis for National Scenic and Historic Trails (August 2013) was developed by the contractor in coordination with BLM staff (Field Office and State Office [New Mexico and Arizona] National Trails System specialists). Inventory data were used to characterize the affected environment for all national scenic and historic trails, and trails under study or trails recommended as suitable, for all alternatives regardless of jurisdiction. Based on the guidance provided in BLM Manuals 6250 and 6280 and consultation with applicable National Trails System specialists, the following was considered: trail components, viewshed analyses, scenic resources, historic and cultural resources, recreation, natural resources, and other landscape elements as applicable. The following agency planning-level data were requested, and Project-level data were used where data gaps were identified out to 1 mile on either side of the Project centerline. (This 2-mile-wide analysis area was developed in conjunction with BLM specialists and is consistent with other resource analysis areas (e.g., recreation, cultural, special designations, visual). Unique landscape features associated with the trail or trail interpretive recreation areas beyond 1 mile on either side of the Project centerline were identified where appropriate.

- Planning-level Data
  - Visual Resource Inventory (VRI)
    - Scenic Quality Rating Units (SQRU)
    - Sensitivity Level Rating Unit (SLRU)
    - Visual Distance Zone
  - National Historic Trail federal protection components
    - High-potential route segments
    - High-potential historic sites

  - National Scenic Trail components
    - Route segments
    - National Trail ROWs/corridor
  - Recreation Spectrum Opportunity (ROS) data, where available
  - National Scenic and Historic Trail routes and ROWs (16 USC 1246 (7)(a))
- Project-level data (i.e., derived from this DEIS for applicable resources, qualities, values and associated settings)
  - Identification of recreation areas (i.e., Special Recreation Management Areas, trailheads, connector roads, interpretive kiosks, etc.), trail-associated viewing locations, and key observation points
  - Identification of historic points of interest related to the trail and NRHP-listed properties
  - Biological data that may include vegetation communities (i.e., wetlands, floodplains, and woodlands), rare species occurrences, critical habitats, and biological features such as habitat conservation areas, migration corridors, and biological core areas

Figures in this appendix include the overview maps above (see figures F-1 and F-2), an index map that illustrates the locations for the Southline Transmission Line Project Project-level National Trails System assessment (figure F-3) and detailed inventory map panels for visual and recreation resources (figures F-4 through F-22), and cultural, biological, and other natural resources (figures F-23 through F-41) in the analysis area. Composite impact assessment results are illustrated on map panels (figures F-42 through F-60).

Inventory (Affected Environment)

Trail Components

For each National Trail and alternative route being evaluated in a NEPA analysis, the affected environment identifies and describes 1) the nature and purpose of the National Trail, if available; 2) the trail's resources, qualities, values, and associated setting(s), 3) primary use(s), 4) the National Trail Right-of-Way and Management Corridor, if available 5) for NHT, Federal Protection Components, the analysis area was limited to the high-potential route segments, high-potential historic sites, and auto tour routes, and 6) National Trail–related NRHP properties (both eligible to and listed on the NRHP).

- **Nature and Purposes of the National Trail** – The nature and purposes are defined as the character, characteristics, and congressional intent for a designated National Trail, including the resources, qualities, values, and associated settings of the areas through which such trails may pass; the primary use or uses of a National Trail; and activities promoting the preservation of, public access to, travel within, and enjoyment and appreciation of such trails. Only those National Trails that have been through the comprehensive management planning process have a formal nature and purpose statement; however, a similar statement regarding the management of a National Trail can be found in the National Trails System Act, along with related Congressional Reports (if available), and will be used in lieu of the nature and purpose if such language exists.
- **National Trail Resources, Qualities, Values, and Associated Settings** – The resources, qualities, and values are defined as the significant scenic, historic, cultural, recreational, natural (including biological, geological, and scientific), and other landscape areas through which such trails may pass, as identified in the National Trails System Act. Associated settings are defined as the geographic extent of the resources, qualities, and values or landscape elements within the

surrounding environment that influence the trail experience and contribute to resource protection. In the context of an implementation action NEPA assessment, only those resources, qualities, values, and associated settings potentially affected by the Project would be inventoried. Based on consultation with the BLM, a Trail analysis area for the Project was defined as a 2-mile-wide corridor centered on the trail and clipped to lands within 1 mile of the transmission line alignment centerlines. (See figures F-1 and F-2 for the locations of the trail inventory.)

- **Primary Use or Uses** – The primary use or uses are defined as the authorized mode or modes of travel, and/or activities identified in the National Trails System Act, enabling legislation, or legislative history, through the trailwide CMP or approved RMP.
- **National Trail Right-of-way and Management Corridor** – The National Trail Right-of-way is described as the corridor selected by the National Trail administering agency in the trailwide CMP, which includes the area of land that is of sufficient width to encompass National Trail resources, qualities, values, and associated settings. The National Trail Management Corridor is described as the allocation established through the land use planning process for a public land area of sufficient width within which to encompass National Trail resources, qualities, values, and associated settings and the primary use or uses that are present or that are to be restored.
- **For NHTs, Federal Protection Components (including high-potential historic sites and high-potential historic route segments) and Auto Tour Routes** – Federal Protection Components are those selected high-potential historic sites and high-potential route segments and other land- and water-based components of a designated NHT located on federally owned land that meet the NHT criteria listed in the National Trails System Act, and that are identified in trailwide CMPs, RMPs, and implementation plans. Auto tour routes are defined as those roads that parallel the NHT and provide opportunities to commemorate and/or interpret the historic route as an alternate experience. These opportunities may occur inside or outside the National Trail Management Corridor. Auto tour route opportunities may include access to NHT high-potential historic sites and high-potential historic route segments, although it is not required. Auto tour routes are normally restricted to existing all-weather roads or paved highways and may be limited to specific use conditions, per BLM Manual 6280.
- **National Trail-related National Register of Historic Places Properties** – Includes properties formally determined as eligible for inclusion in and properties listed on the NRHP by the Secretary of the Interior, and all other significant properties that meet NRHP listing criteria. This includes 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.

Viewshed Analysis

For NSTs, a viewshed analysis was conducted out to 5 miles from the continuous route alignment to determine an area where the most intense impacts would occur based on the construction, operation, and maintenance of the Project. (It should be noted that this corridor width is the same as the visual resource analysis area identified for Project analysis.) For NHTs, a viewshed analysis was also conducted out to 5 miles from high-potential sites, high-potential segments, and the designated auto tour route. This analysis area allows for focusing the inventory on resources that may be affected by the Project. The viewshed analysis identified landscape features that are seen and not seen from the National Trail. The viewshed was conducted using a geographic information system (GIS)-based visibility analysis technique and then verified during field investigations of affected National Trails. Specifically, the viewshed analyses were conducted:

- at existing recreation and interpretive developments and at critical points that reflect how a trail visitor interacts with the trail, including developed recreation areas such as trailheads, and natural features such as overlook points/pullouts and access points, where identified in the CMP;
- at areas with sensitive resources, qualities, values, and associated settings;
- at regularly spaced intervals along the National Trail tread, trace, and/or management corridor centerline to ensure no gaps in the viewshed analysis; and
- for NHTs, National Trail–related NRHP-eligible and NRHP-listed properties noted in the CMP; other significant historic trail-related features such as river crossings, springs, and stage stations (where applicable); high-potential historic sites and high-potential route segments; auto tour routes; and recreation trails (where applicable) that facilitate public access and opportunities for vicarious experiences.

SCENIC RESOURCES

Visual Resource Inventory – Bureau of Land Management Resource Management Plans

The BLM Visual Resource Management (VRM) system requires the inventory of scenic values and the establishment of management objectives for those values through a VRM planning process. The Visual Resource Inventory (VRI) process and its resulting information provide the information necessary to characterize the existing or affected environment for visual resources, and are required for management and Project-level decisions. The BLM's Manual H-8410-1 (BLM 1986) defines the criteria that define VRI components of scenic quality, SLRUs, distance zones, and VRI classifications. VRI data were provided by the BLM Field Offices (Las Cruces District, Safford, and Tucson) and incorporated into the inventory; and VRI data gaps (i.e., where agency VRI data do not exist or the BLM determines that existing data are insufficient) were identified and updated by the BLM Field Offices for inclusion in the Draft EIS. BLM Manual 6280 requires the use of BLM VRI data (scenic quality, sensitivity levels, and distance zones) to characterize the affected environment for all National Trails.

Scenic Quality

Scenic quality as defined by the BLM is the measure of the visual appeal of a tract of land. In the VRI process, public land is given an A, B, or C rating, based on the evaluation of the following seven key factors: landform, vegetation, water, color, adjacent scenery, scarcity, and cultural modifications. Class A scenery typically has a higher degree of landscape relief, diversity of water, and vegetation that harmoniously combine and result in a high level of aesthetic appeal. Class B scenery has less variety in the elements that comprise the landscape, but still has some diversity and visual interest. Class C scenery typically does not have much diversity in terms of landscape features, and rates the lowest from an aesthetic perspective. SQRUs are units of land that characterize the natural landscape setting. These settings are associated with similar features that harmonize with each other and result in a particular landscape character. These SQRUs may range in size from several thousand acres to 100 acres or less, depending on the homogeneity of the landscape features, and take into account man-made features that either enhance or detract from the scenic value. The use of SQRUs to characterize the existing setting of National Trails will provide a consistent definition of setting for all trail resources (visual, recreation, cultural, and biological).

Sensitivity Level Rating Units

SLRUs are a measure of public concern for the maintenance of scenic quality associated with a given tract of BLM land. Public lands are assigned high, medium, or low sensitivity by analyzing the various

indicators of public concern, including type of user, amount of use, public interest, adjacent land uses, and special areas, among other factors. Similar to SQRUs, SLRUs characterize the public value of the natural landscape setting and do not always correlate with the most scenic areas.

Distance Zones

Per BLM guidance, landscapes are subdivided into three distance zones based on relative visibility from public viewing locations (i.e., roads, residences, etc.). The three distance zones that the BLM uses to characterize the visibility of BLM-administered lands are foreground-middleground (0 to 5 miles), background (5–15 miles), and seldom seen (greater than 15 miles).

HISTORIC AND CULTURAL RESOURCES

Historic and cultural resource data pertaining to high-potential sites, high-potential segments, and auto tour routes were obtained from the BLM as outlined in the Anza CMP. For the cultural resources analysis conducted for the EIS, only a Class I records review was conducted. A detailed Class I records review in support of the proposed Project was conducted to identify prior inventories, research, and previously recorded sites within 1 mile of the Project reference centerline for all alternatives corridors considered in the EIS (2-mile corridor).

RECREATION

Land and resource use data that identify existing and planned land uses were collected within the analysis area. In addition, recreation data pertaining to trail-related viewing locations and key observation points were also collected within the analysis area, based on the results described in this DEIS. Information was obtained from various federal, state, and local agency staff and documents, including:

- BLM RMPs concerning recreation resources, visual resources, cultural resources, and special management areas, including special recreation management areas, designated off-highway vehicle areas, Wilderness Study Areas, and other authorized land uses that could specifically pertain to National Trails
- New Mexico and Arizona State Parks and Fish and Game Departments
- City and County land use plans
- Aerial imagery
  - Digital Globe Satellite Imagery
  - ESRI©

NATURAL RESOURCES

Biological data collected for the DEIS (see sections 3.8 and 4.8) were based in part on the results of public scoping and in consultation with the BLM. The following areas of concern were identified with regard to biological resources and were collected within the NST and NHT analysis areas:

- Migratory bird corridors (Pacific flyway) and Audubon Important Bird Areas
- Critical habitat (southwestern willow flycatcher, Mexican spotted owl, northern Mexican garter snake, and Gila chub)
- Riparian habitat and floodplain/cottonwood forest
- Habitat Conservation Areas and Biological Core Areas (Pima County)
- Migration and movement corridors

Based on consultation with BLM and FS trail administrators, NPS trail administrators, and local BLM Field Office resource specialists, vegetation communities occurring within each NST and NHT analysis area were identified and data were obtained from the Resource Geographic Information System (New Mexico) and Arizona Land Resource Information System. Landscape-defining characteristics, including prominent or distinctive aspects, qualities, and characteristics (i.e., wind potential), are identified as part of the rating for natural resources.

Other Landscape Elements

Existing conditions (i.e., cultural modifications such as developments, facilities, etc.) comprise the relatively intact settings for each NST and NHT that may be affected by the proposed Project. Within the NST and NHT analysis areas, existing conditions range from naturally appearing to completely modified, based on the presence of development, including existing transmission lines (both high- and low-voltage), substations, pipelines (water and high pressure natural gas), travel routes (i.e., road ROWs), residential and commercial development, and other man-made features that affect the natural character of settings. Existing conditions were evaluated by means of aerial photography and coordination with local Field Office specialists to determine the location where modifications have affected natural settings, and to the relative degree that these conditions have altered the settings within the analysis area.

Regarding ROWs as they relate to cultural modifications, the Secretary, through the BLM, "may grant easements and rights-of-way upon, over, under, across, or along any component of the National Trails System in accordance with the laws applicable to…[the BLM public lands]…[p]rovided [t]hat any conditions contained in such easements and rights-of-way shall be related to the policy and purposes of…[the National Trails System Act]" (National Trails System Act Sec. 9(a)). To the greatest extent possible, for scenic and historic trails, the BLM shall consider locating proposed ROWs outside of Federal Protection Components, high-potential historic sites, and high-potential route segments; and for NSTs, to areas of comparative disturbance, in accordance with this policy. The BLM may approve proposed ROWs, subject to terms and conditions that are related to the policy and purposes of the National Trails System Act. Through the NEPA process for proposed ROWs, the BLM may permit ROWs that would not substantially interfere with National Trail purposes, and shall make efforts, to the extent practicable, to avoid ROWs that would be incompatible with the purposes for which that National Trail was established, in accordance with law and this policy.

Setting Description

The setting is defined as the geographic extent of the resources, qualities, and values or landscape elements within the surrounding environment that influence the trail experience and contribute to resource protection in context with the proposed Project alternative reference centerlines. For NSTs, the setting description identifies significant scenic or high visual qualities within the analysis area. For NHTs, the setting description identifies areas associated with high scenic quality that support the nature and purpose and/or relative freedom from intrusion within and adjacent to high-potential sites and segments.

Impact Assessment Methodology

This section focuses on the identification and characterization of scenic and historic trail impacts associated with the proposed Project. Impacts to National Trails would result from the construction and operation of the proposed transmission lines, substations, ancillary facilities, and access roads. The impact assessment was developed in consultation with the BLM and is consistent with and adheres to BLM guidance pertaining to NSTs and NHTs (BLM Manuals 6250 and 6280).

As part of the NEPA analysis, the proposed Project was evaluated to determine if it would substantially interfere with or be incompatible with the nature and purposes of any National Trails (see section 3.12 of the DEIS for description of each National Trail) or equivalent statement (i.e., purpose of trail identified in the National Trails System Act and Congressional Reports). Significant impacts related to scenic and historic trails would be the result of high impacts on key inventoried resource qualities, values, and associated settings from the proposed Project that cannot be effectively mitigated. The following are general descriptions of the criteria for assessing the intensity of impacts that would result from the construction, operation, and maintenance of the Project, and table F-1 presents the criteria used in the assessment.

- High Impacts—The intended experience of the trail, gleaned from the nature and purpose or similar language in the National Trails System Act, is no longer possible or is substantially compromised based on the construction and operation of the Project. Impacts cannot be effectively mitigated.
- Moderate Impacts—The intended experience of the trail is affected but would not be substantially compromised. Mitigation may or may not be necessary.
- Low Impacts—The intended experience of the trail would be affected negligibly. Mitigation would probably not be necessary.

Table F-1. Assessing Intensity of Impacts to National Trails

Intensity of Impacts	Criteria for Assessing Intensity of Impacts
High	- Scenic Resources – Contrast produced by the proposed Project would demand attention and dominate views from the trail centerline where form, line, color, and texture of Project components would be incongruent with existing landscape or historic features. – High-quality, diverse, and rare or unique scenery (Class A or B) would be modified where the setting is a defining factor for the "high-potential route segments" or as seen from historic properties* and/or unevaluated cultural resources and/or interpretive areas, or scenic trail centerlines. - Historic and Cultural Resources – Characteristics of historic properties and/or unevaluated cultural resources located in the trail corridor and seen from the trail centerline would be modified to the extent that the NRHP eligibility of the trail segments and related historic properties and/or unevaluated cultural resources affected would be compromised. - Recreation, including Travel Management – Intact resource values, including recreation and National Trail–related travel management opportunities and values would be substantially compromised by the proposed Project. These values would no longer contribute to the character of the trail. - Natural Resources – Natural values, including any key contributing values and characteristics, would be substantially compromised by the proposed Project (i.e., a riparian area adjacent to a route segment follows what would be cleared for access roads). These values would no longer contribute to the character of the trail. - Other Landscape Elements – Presence of developments; facilities; landscape modifications; existing land uses; valid existing rights; surface, subsurface, or other interests in land ownership; and other variables such as sights, smells, and other experiences that may impact the trail experience. Areas where Project facilities would be located in proximity to, or parallel with (but not immediately adjacent to), landscape modifications that exhibit similar form, line, color, and texture.

Table F-1. Assessing Intensity of Impacts to National Trails (Continued)

Intensity of Impacts	Criteria for Assessing Intensity of Impacts
Moderate	- Scenic Resources – Contrast produced by the proposed Project would attract attention from viewers using the trail centerline, and Project components would be co-dominant with existing landscape features. – The inherent quality of interesting, but not outstanding, landscapes (Class B or C) would be modified as seen from historic properties and/or unevaluated cultural resources and/or interpretive areas, or scenic trail centerlines. - Historic and Cultural Resources – Characteristics of historic properties and/or unevaluated cultural resources located in the trail corridor and seen from the trail centerline would be modified to the extent that the NRHP eligibility of the trail segments affected may be compromised, but the effect could be minimized. - Recreation, including Travel Management – Intact resource values, including recreation and National Trail–related travel management opportunities and values, would be modified by the proposed Project but would remain suitably intact and continue to contribute to the character of the trail. - Natural Resources – Natural values, including any key contributing values and characteristics, would be modified by the Project but would remain suitably intact and continue to contribute to the character of the trail. - Other Landscape Elements – Presence of developments; facilities; landscape modifications; existing land uses; valid existing rights; surface, subsurface, or other interests in land ownership; and other variables such as sights, smells, and other experiences that may impact the trail experience. – Areas where Project facilities would be located in proximity to, or parallel with (but not immediately adjacent to), landscape modifications that exhibit similar form, line, color, and texture.
Low	- Scenic Resources – Contrast produced by the proposed Project would not be readily apparent from trail centerlines and would be subordinate in the context of existing conditions. – Minimal change would occur to the existing character of interesting and common landscapes (Class B or C) as seen from historic properties and/or unevaluated cultural resources and/or interpretive areas, or scenic trail centerlines. - Historic and Cultural Resources – Characteristics of historic properties and/or unevaluated cultural resources located in the trail corridor and seen from the trail centerline and the trail segments affected would be modified, but their eligibility for listing on the NRHP would likely not be affected. - Recreation, including Travel Management – Intact resource values, including recreation and National Trail–related travel management opportunities and values, would be modified negligibly by the proposed Project. Contributing values would continue to define the character of the trail. - Natural Resources – Natural values, including any key contributing values and characteristics, would be modified negligibly by the proposed Project. Contributing values would continue to define the character of trail. - Other Landscape Elements – Presence of developments; facilities; landscape modifications; existing land uses; valid existing rights; surface, subsurface, or other interests in land ownership; and other variables such as sights, smells, and other experiences that may impact the trail experience. – Areas where the proposed Project would be located in proximity or parallel to an existing transmission line facility with similar landscape modifications and structural elements in regard to form, line, color, and texture, or screened from viewing locations associated with the trail such that the landscape is perceived to be unaltered.

* Historic Properties are defined in the National Historic Preservation Act of 1966, as amended, as "any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion on the National Register, including artifacts, records, and material remains related to such a property or resource."

Initial Impacts

The intensity of a potential impact on the trail's nature and purpose, and resources, qualities, values, associated settings, and primary use or uses would be used as the basis for assessing initial impacts. The detailed methods to determine initial impacts are consistent with agency-approved analysis methods for the National Trails, as well as visual resources, land use and recreation, cultural resources, and

biological resources. (It should be noted that each National Trail has resources, qualities, values, associated settings, and primary use or uses that are unique to the trail; therefore, the resources, qualities, values, associated settings, and primary use or uses may differ between trails and may differ along different segments of the same trail.) The assessment of initial impacts takes into consideration standard mitigation or design features, including but not limited to using non-specular conductors, constructing the towers with dull gray galvanized steel, and employing overland construction techniques where vegetation and topographic conditions allow. A detailed list of standard mitigation measures can be found in the DEIS in chapter 2.

MITIGATION PLANNING AND RESIDUAL IMPACTS

After initial impacts have been assessed, standard mitigation measures (including Design Features and Best Management Practices for National Trails and Associated Resources [Manual 6280 – Appendix 1]) would be applied to reduce potential impacts associated with the construction, operation, and maintenance of the proposed Project to the extent practicable. Where best management practices would not reduce impacts resulting from the proposed Project, selective mitigation measures would be employed, where feasible. The application of these mitigation measures would be applied through the use of an interdisciplinary team (including landscape architects, planners, archaeologists, outdoor recreation planners, and other key resource staff as appropriate for each trail segment) to most effectively reduce impacts on all identified trail resources. A detailed list of selective mitigation measures can be found in chapter 2 of this DEIS. Off-site mitigation may be applied, where feasible and through negotiations with the Project proponent, for the life of the development, in an effort to off-set significant or high impacts of the proposed Project that are not able to be mitigated. Off-site mitigation measures would be based on the final design of the proposed Project and would be specified in the final Plan of Development (POD), in coordination with applicable agencies and/or trail organizations.

Cumulative Effects

Cumulative effects to National Trails would be evaluated in the context of the trail's resources, qualities, values, associated settings, and primary use or uses in a manner similar to the proposed Project-level impact methodology. Direct and indirect effects would be assessed for both construction and operation activities associated with the proposed Project. Note that individual resource cumulative effects are discussed in section 4.20 in the DEIS. To focus the analysis of cumulative effects as they relate to the proposed Project, the analysis area for NSTs would be limited to the continuous trail alignment within the Field Offices traversed by the proposed Project, in consideration of other reasonably foreseeable projects along the National Trail. For NHTs, the analysis area would be limited to the high-potential route segments, high-potential sites, and auto tour routes identified in the areas traversed by the proposed Project, in consideration of other reasonably foreseeable projects along the National Trail. The following methods summarize how cumulative effects will be evaluated for potentially affected National Trails.

TRAIL RESOURCES, QUALITIES, VALUES, ASSOCIATED SETTINGS, AND PRIMARY USE OR USES

1. Scenic and Visual Resources
    a. Cumulative effects of the incremental modification to the integrity of the associated settings and scenic values for which the National Trail was designated
    b. Cumulative effects to the naturally appearing landscapes associated with the NST or NHT, regardless of scenic quality rating

2. Cultural and Historic Resources
    a. Cumulative effects to historic/cultural resources consist of the loss of cultural artifacts, features, or sites that could have cultural significance or could yield important information about the National Trail
    b. Cumulative impacts to the historic settings, and those characteristics that support the historic setting
3. Recreation, including Travel Management
    a. Cumulative effects to high-quality recreation opportunities; relative freedom from intrusion; opportunities for vicarious experiences; and conservation, protection, and restoration of National Trail resources, qualities, values, and associated settings
    b. Cumulative effects to desired recreation setting characteristics
    c. Cumulative effects to the primary use or uses of the National Trail
    d. Cumulative effects to the travel systems in the area, including permanent access that could generate more movement in areas that would not have previously been accessible
4. Natural
    a. Cumulative effects to natural resources (biological, geological, and scientific) relate to ground disturbance and the resulting loss of biological, geological, or other scientific resources
    b. Cumulative effects to the natural settings that are the geographic extent of the natural landscape elements that influence the trail experience and contribute to resource protection
5. Other Landscape Elements
    a. Cumulative effects

REGIONAL SETTING

National Scenic Trails

Continental Divide National Scenic Trail

In southwestern New Mexico, the CDNST follows a route that ranges in elevation from approximately 4,200 to 8,050 feet above mean sea level (amsl) within the Mexican Highland and Datil subdivisions of the Basin and Range and Colorado Plateau physiographic provinces, respectively (Fenneman 1931). The Basin and Range Province is characterized by its isolated, roughly parallel mountain ranges separated by closed (undrained) desert basins. The mountain ranges often run 50 to 70 miles in length and generally trend north-south. The Mexican Highland subdivision is also characterized by basin and ranges and intervening desert plains; however, most of the area has external drainage as opposed to draining internally to basins or bolsons. Mexican Highland vegetation is characterized by creosote, cacti, and yucca at lower elevations, whereas sagebrush and greasewood are dominant at elevations higher than 3,500 feet amsl. The Datil subdivision of the Colorado Plateau contains a greater number of domed, volcanic features than elsewhere in the province and includes the San Mateo, Magdalena, and Black Mountain ranges. This subdivision is characterized by prairie grasslands and rolling piñon-juniper woodland, although the transition between Basin and Range to Colorado Plateau is not distinct. Most of the CDNST in southwestern New Mexico follows the ridgelines of these mountains and foothills, which contain semi-desert grassland vegetation characterized by grasses, shrubs, succulents, and juniper trees

along the tops. The landforms in this region are commonly rounded or rolling hills and bajadas, with occasional cliffs or rock spires. Few diverse subdivisions are crossed by the CDNST in southern New Mexico.

Arizona National Scenic Trail

The Arizona Trail begins at the Arizona–Mexico border, traversing the Basin and Range Province and Colorado Plateau before terminating at the Arizona–Utah border. In southern Arizona, the trail passes through topography associated with the "Sky Islands," including the Santa Rita, Rincon, and Santa Catalina Mountains. These ranges run 15 to 25 miles in length trending north-south, which is characteristic of the Basin and Range. These mountain tops are typically occupied by conifer woodland and surrounded by semi-desert grassland at lower elevations, which give the appearance of mountain islands. Specific to the southern region of Arizona, vegetation along the Arizona Trail may include a variety of tree species, such as paloverde, ironwood, and mesquite, commonly found along seasonal drainages. Rivers and wetter drainages may have occurrences of cottonwoods, willows, and saltcedar, which is an invasive species. Dense riparian areas are found concentrated along the Cienega Creek near Tucson.

National Historic Trails

Juan Bautista de Anza National Historic Trail

In Southern Arizona, the Anza Trail passes through a section of the Basin and Range province, the Sonoran Desert.

Mountain ranges that surround the Santa Cruz River corridor near Tucson include the Santa Catalina, Tucson, Tortolita, and the Santa Rita Mountains. Vegetation associated with the Sonoran Desert includes a variety of cacti and succulents; however, creosote is common, mixed with brittlebrush and other lowland desert shrubs. The Sonoran Desert Uplands are typically characterized by a variety of tree species, including paloverde, ironwood, and mesquite, which are commonly found along seasonal drainages. Rivers and wetter drainages may have occurrences of cottonwoods, willows, and saltcedar (an invasive species). Since the Anza Trail follows major river corridors such as the Santa Cruz River in southern Arizona, floodplains and wetland vegetation are common where portions of the river are not channelized or urbanized (i.e., Tucson and Marana).

Trails Recommended as Suitable for National Trail Designation

Butterfield Overland Mail and Stage Route

Similar to the Anza Trail, the Butterfield Trail traverses the Basin and Range province in New Mexico and Arizona. The Butterfield Trail crosses through the Mexican Highland subdivision of this province in New Mexico and the Sonoran Desert in Arizona. These subdivisions are characterized by smaller mountain ranges, rock pediments (sloping solid rock), and basins that typically have external drainage as opposed to draining internally to basins and bolsons. Mexican Highland vegetation is characterized by creosote, cacti, and yucca at lower elevations, whereas sagebrush is dominant at elevations higher than 3,500 feet amsl. Vegetation associated with the Sonoran Desert includes a variety of cacti and succulents; however, creosote is common mixed with brittlebrush and other lowland desert shrubs. The Sonoran Desert Uplands are typically characterized by a variety of tree species, including paloverde, ironwood,

and mesquite, which are commonly found along seasonal drainages. Rivers and wetter drainages may have occurrences of cottonwoods, willows, and saltcedar (an invasive species). Throughout these subdivisions, the occurrences of springs provided water for historic-era trail users and were key to the establishment of stations along the stage route. Near Tucson, the Butterfield Trail followed a portion of the Santa Cruz River corridor, primarily because water was present throughout the year; thus floodplain and/or wetland vegetation are common. The majority of the Santa Cruz River in Tucson has been channelized or developed by industrial and residential uses and floodplain vegetation is marginal.

INVENTORY RESULTS

National Scenic Trails

Continental Divide National Scenic Trail

NATURE AND PURPOSE

One of the primary purposes of the CDNST is to provide a "continuous, appealing" route designed for travel by hikers and equestrians, as well as other compatible land uses. While in some instances the trail is located along roads that would allow motor vehicle use, the intention for future development is to relocate the trail entirely off-road, to limit use to non-motorized recreation. In 1997, a Forest Service Memorandum clarified this intent, stating that "It is the intent of the Forest Service that the CDNST will be for non-motorized recreation…Allowing motorized use on these newly constructed trail segments would substantially interfere with the nature and purpose of the CDNST" (FS 1997). In 2009, the amended CMP describes the nature and purposes of the CDNST as "to provide high-quality scenic, primitive hiking and horseback riding opportunities and to conserve natural, historic, and cultural resources along the CDNST corridor" (FS 2009:4).

RESOURCES, QUALITIES, AND VALUES, AND ASSOCIATED SETTINGS

Scenic Resources

Scenic Quality Rating Units

The CDNST analysis area near Lordsburg, New Mexico, traverses Class C scenic quality associated with Chihuahuan semi-desert plains. The Lordsburg Valley is characterized by low, sparse shrub vegetation that typically surrounds smaller mountain ranges and foothills. The adjacent Big Burro Mountains, located to the north, are associated with Class B scenic quality where unique pyramidal or conical peaks with steep rock cliffs are typical. From the Lordsburg Valley, the CDNST crosses through these mountains within the Gila National Forest north of Lordsburg.

Sensitivity Level Rating Units

The majority of the CDNST analysis area is associated with high sensitivity, which includes the I-10 corridor. Areas associated with moderate sensitivity include the Big Burro Mountains. Low sensitivity lands generally occur in flat valley areas with few local travel routes north of Lordsburg.

Distance Zones

The CDNST analysis area occurs within the foreground-middleground distance zone. Viewers associated with this distance zone include travel route viewers along 1-10 and other major travel routes in the Lordsburg vicinity.

Historic and Cultural Resources

The 2009 *Continental Divide National Scenic Trail Comprehensive Plan* (Comprehensive Plan) (FS 2009) does not identify specific historic or cultural resources associated with this segment of the CDNST, although the Butterfield Trail crosses the CDNST in the town of Lordsburg.

Recreation

Consultation with the BLM Las Cruces District confirmed that ROS data were not available within the CDNST analysis area. Project-level information relating to recreation viewers was used, as well as information in the Comprehensive Plan relating to desired visitor experiences and interpretive facilities. The Comprehensive Plan states that on lands administered by the BLM, the CDNST is considered a high sensitivity level travel route. There are no developed recreational facilities for the CDNST in the analysis area. Connecting travel routes may provide access for trail users and were inventoried as a resource value. Trail users in Lordsburg may be limited to access points near State Route 90 and local roads south of Lordsburg, including State Route 494 and Animas Street. The location of the trail through Lordsburg primarily provides the trail user services (e.g., shopping for supplies and accommodations) rather than primitive or semi-primitive non-motorized recreation experiences as identified in the Comprehensive Plan.

Natural Resources

The Comprehensive Plan does not identify specific natural resources, including biological, geological, and scientific resources for the CDNST in the analysis area. Based on the proposed Project-level data, the Lordsburg Valley is characterized by Chihuahuan semi-desert grassland vegetation. The desert foothills of the Big Burro Mountains support mostly grasses and shrubs, as well as occasional juniper, and a desert drainage dissecting it is occupied by xeroriparian scrub. There are no perennial streams, washes, intermittent streams, wetlands, or playas within the CDNST analysis area. The Animas Valley (wholly containing the smaller Lordsburg Valley) is bounded by the Peloncillo Mountains to the west, the Animas and Pyramid Mountains to the east, and Burro Mountains to the north.

Other Landscape Elements

The CDNST traverses the developed area of Lordsburg that is associated with urban residential, commercial, industrial, and rural residential development. I-10 is a major interstate travel corridor that bisects the town. Other major travel routes interconnecting with I-10 include State Route 90, which heads northeast to Silver City, and State Route 70, which heads northwest towards Duncan, Arizona. The CDNST analysis area south of Lordsburg is traversed by several underground pipelines; the West-wide Energy Corridor is also located south of these utilities. The CDNST analysis area north of Lordsburg is also traversed by several utilities, including a 115-kilovolt (kV) transmission line, a 345-kV transmission line, two pipelines, and the Hidalgo Substation. In this panoramic valley landscape, the development of Lordsburg is visible to trail users from within the analysis area.

Setting Description

The analysis area for the CDNST occurs primarily within the developed area of Lordsburg and the rural areas of Lordsburg Valley. In areas south of Lordsburg, cultural modifications that have locally modified

the landscapes in the CDNST analysis area include local transportation routes (State Route 494 and Animas Road), development and residences associated with the city of Lordsburg, the I-10 corridor, underground pipelines, and the Southern Pacific Railroad. In addition, development associated with the ghost town of Shakespeare and the ghost town and associated abandoned mine of Valedon have locally modified the landscapes. The area north of Lordsburg in the CDNST analysis area is also traversed by several utilities, including a 115-kV transmission line, a 345-kV transmission line, two pipelines, and the Hidalgo Substation. The Comprehensive Plan acknowledges that isolated portions of the trail may pass through developed areas where there are few primitive or semi-primitive recreational opportunities. The adjacent mountain ranges and peaks surrounding the Lordsburg Valley may be the only landscapes associated with high scenic or visual quality for the CDNST in the Lordsburg vicinity. More natural landscape settings occur for the trail north of Lordsburg near the Big Burro Mountains; however, cultural modifications such as the existing transmission lines and Hidalgo Substation are dominant.

PRIMARY USE(S)

The primary use of the CDNST is to provide recreational opportunities of national significance, as the 3,100-mile trail traverses from Mexico to Canada. The Comprehensive Plan identifies the CDNST as a trail for users to enjoy a greater diversity of physical, social, and managerial settings than found on any other extended NST.

NATIONAL TRAIL RIGHT-OF-WAY AND MANAGEMENT CORRIDOR

The Comprehensive Plan identifies a 50-mile-wide "zone of concern" that lies on either side of the geographical Continental Divide. The Comprehensive Plan states that initial trail location and subsequent relocation of ROWs may occur within this zone of concern without further Acts of Congress. It further states that the trail should be located as close to the geographic Continental Divide as possible, but as far away as necessary to provide an economically feasible, environmentally compatible route that offers safe travel and diverse recreational experiences. Based on this information, it is assumed that the trail ROW and management corridor could potentially occur within this zone of concern, although the width of these areas is not explicitly stated.

NATIONAL TRAIL–RELATED NATIONAL REGISTER OF HISTORIC PLACES PROPERTIES

There are no known NRHP properties associated with the CDNST analysis area.

Arizona National Scenic Trail

NATURE AND PURPOSE

Because the Arizona Trail has not been described in a trail feasibility study, comprehensive plan, or CMP, the nature and purpose of the trail have yet to be defined in Federal policy. However, references to the trail in its 2009 congressional designation emphasize its intention as a non-motorized, multi-use recreational trail, in a manner consistent with the National Trails System Act of 1968. Senate Report 110-290 on S. 1304 (The Arizona National Scenic Trail Act), April 10, 2008, describes the Arizona Trail's background and need: "The trail is intended to be a primitive, long distance trail that highlights the State's topographic, biologic, historic, and cultural diversity." In support of this designation, U.S. Senator John McCain (AZ) referred to the "rugged, spectacular scenery" and "the wide range of ecological diversity in the state" found along the trail, lending his support to its designation as an NST in order to "ensure the preservation of a corridor of open space."

RESOURCES, QUALITIES, AND VALUES, AND ASSOCIATED SETTINGS

Scenic Resources

Scenic Quality Rating Units

The Arizona Trail analysis area near Vail, Arizona is characterized by more traditional Sonoran Desert vegetation, including saguaro, mixed cacti, and shrub species along with the occasional drainages, which typically contain paloverde or other desert trees. The topography within the Arizona Trail analysis area is typically rolling with V-shaped ridgelines, and is associated with Class B scenery, as well as upper bajadas where the topography is more rolling, with large V-shaped dissections that resemble small, rolling foothills, where gently sloping bajadas occur at the base of the adjacent Rincon and Empire Mountain ranges. Vegetation is typically diverse on these bajadas and may include mesquite, acacia, creosote, ocotillo, and cholla species. Slightly undulating terrain is dissected by washes and contains a greater variety of upland Sonoran Desert vegetation, including mesquite, paloverde, and ironwood trees. This area is a transitional area between Chihuahuan and Sonoran Desert species where cacti, yucca, agaves, and other shrub and grass species are mixed.

Sensitivity Level Rating Units

The analysis area for the Arizona Trail is delineated as high sensitivity.

Distance Zones

The Arizona Trail analysis area occurs within the foreground-middleground distance zone. Viewers associated with this distance zone include trail viewers, I-10, and other major travel routes.

Historic and Cultural Resources

Cultural resources associated with the Arizona Trail corridor have not been fully inventoried, since a comprehensive plan or CMP is still undergoing development. The Butterfield Trail (recommended as suitable) historically occurred along the valley between the Rincon Mountains and Santa Rita Mountains and crosses the Arizona Trail near Cienega Creek, approximately 6 miles north of where the proposed Project would cross the Arizona Trail. Although the exact location of the Butterfield Trail in this area is not documented at this time, it is likely that the perennial waters of Cienega Creek were a key reason to establish the Cienega Creek Station for the overland route.

Recreation

Consultation with the BLM Tucson Field Office confirmed that ROS data were not available within the Arizona Trail analysis area. Project-level information relating to recreation viewers was used.

The portion of the Arizona Trail that occurs within the analysis area near Vail receives among the highest amount of use trailwide because of the close proximity to the Tucson metropolitan area and other recreation attractions such as Cienega Creek National Conservation Area, Colossal Cave, Saguaro National Park, and the Rincon Mountains Wilderness. The trail alignment passes through Colossal Cave Mountain Park (a Pima County recreation area), and trail users can access the cave by following a connecting unpaved road for approximately 1 mile. Other developed recreation facilities within this park include picnic areas and La Posta Quemada Ranch, which is a day ranch for horseback riding. Cienega Creek Natural Preserve is a Pima County recreation area that requires a permit to enter (refer to section 3.14 of this DEIS). The Gabe Zimmerman Davidson Canyon trailhead provides parking and access to the preserve, as well as access to the Arizona Trail, which traverses the preserve. Use of the trail is common in this area by birders, hikers, and equestrians, as well as by mountain bikers who commonly travel from

Pistol Hill Road to the Cienega Creek. The town of Vail is identified by the Arizona Trail Association as a Gateway Community and is located to the northwest of the trail off I-10. Several travel routes in the area may serve as a resource value for the trail, including designated scenic routes State Route 83 (Patagonia Scenic Byway) and I-10 (Pima County designation), which provide regional access to the trail. Other local travel routes that serve as a resource value for the trail include the Old Spanish Trail, Pistol Hill Road, and Pantano Road.

Natural Resources

Based on Project-level data, the Arizona Trail analysis area near Vail is characterized by gently sloping bajadas that occur at the base of the adjacent Rincon and Empire Mountain ranges. This area is also a transition zone between the Sonoran and Chihuahuan Desert vegetation communities, which results in a mixed desert cacti landscape and semi-desert grassland. Cienega Creek is identified as an important water, wildlife, and recreation resource in southern Arizona. It is also a unique and rare low-elevation perennial water resource that contains mature cottonwood gallery forests and dense mesquite bosques. Diverse wildlife species are supported by Cienega Creek, including native fish, birds, and amphibians, many of which are rare or threatened and endangered. Cienega Creek is classified as an "outstanding state resource water" by the Arizona Department of Environmental Quality. Cottonwood gallery forests are found concentrated along the lower portions of Davidson Canyon and La Posta Quemada Wash. Ephemeral washes that cut across bajadas and into the surrounding valley landscapes support xeroriparian vegetation. These include the upper portions of Davidson Canyon and La Posta Quemada Wash. There tends to be less variety and density of riparian vegetation along these smaller drainageways.

Other Landscape Elements

There are numerous cultural modifications and existing utilities within the Arizona Trail analysis area. These include a dirt road and shelters associated with Colossal Cave Mountain Park, I-10, three paved roads (Pantano Road, Charolais Road, and State Route 83), the Southern Pacific Railroad, two bridges for transportation infrastructure, and existing 345-kV transmission lines. In some instances, these features dominate the view, but rolling terrain partially screens these developed facilities. Residential development also occurs on the foothills of the Rincon Mountains, which is within the Arizona Trail analysis area. Many of these features can be seen along the trail as it parallels Davidson Canyon between the vicinity of the Gabe Zimmerman trailhead and the trail's crossing of Charolais Road.

Setting Description

The Vail, Arizona landscape is characterized by rural residential development, rolling hills, and upper Sonoran Desert vegetation with cultural modifications evident near the trail. Three 345-kV transmission lines cross the analysis area and parallel the Arizona Trail near Cienega Creek north of I-10. Three underground pipelines also cross the Arizona Trail near I-10. South of I-10, several other transmission lines cross the trail, including 115-kV, 138-kV, 230-kV, and 345-kV transmission lines that share the same utility corridor entering Tucson from the east. Cienega Creek, Davidson Canyon, and the adjacent mountain ranges and peaks surrounding this area south of Tucson are associated with high scenic or visual quality for the trail. More natural landscape settings occur for the Arizona Trail as it proceeds north through this developed rural area of Tucson and Vail into Saguaro National Park. Cultural modifications such as I-10 and utility corridors are evident and dominate this enclosed landscape.

PRIMARY USE(S)

A comprehensive plan or CMP for the Arizona Trail has not been completed; therefore, primary use is not defined. Although Senate Report 110-290 on S.1304 (April 10, 2008) states that "[t]he primary uses are expected to be hiking, equestrian use, and mountain bicycling," and House Report No 90-1631 states that

"the use of motorized vehicles by the general public along any national scenic trail shall be prohibited," motorized use does occur on the Arizona Trail where it is located alongside existing roads, such as Tiger Mine Road.

NATIONAL TRAIL RIGHT-OF-WAY AND MANAGEMENT CORRIDOR

A comprehensive plan or CMP for the Arizona Trail has not been completed; therefore, the trail ROW and Management Corridor are not defined.

NATIONAL TRAIL–RELATED NATIONAL REGISTER OF HISTORIC PLACES PROPERTIES

A comprehensive plan or CMP for the Arizona Trail has not been completed; therefore, National Trail–related NRHP properties have not been identified.

National Historic Trails

Juan Bautista de Anza National Historic Trail

NATURE AND PURPOSE

The nature and purpose of the Anza Trail is described as a vision for "a traveler to be able to hike, ride horseback, bicycle, and drive on a marked route from Nogales to San Francisco and the loop in the eastern portion of San Francisco Bay" (NPS 1996:7). Along the way, the visitor can experience landscapes similar to those the expedition saw; learn stories of the expedition, its members, and descendants; better understand the American Indian role in the expedition and the diversity of their cultures; and appreciate the extent of the accomplishments of Juan Bautista de Anza and his colonizers.

RESOURCES, QUALITIES, AND VALUES, AND ASSOCIATED SETTINGS

Scenic Resources

Scenic Quality Rating Units

The Santa Cruz River comprises the majority of the Anza Trail analysis area within or near Tucson, Arizona. There is no BLM land associated with this trail corridor in the analysis area and the landscape immediately adjacent to the river has been developed. The river corridor has also been highly modified and is primarily channelized throughout its length in Tucson, including paving the banks of the river.

Sensitivity Level Rating Units

Moderate sensitivity is associated with the Anza Trail in the analysis area.

Distance Zones

The Anza Trail analysis area occurs within the foreground-middleground distance zone. Viewers associated with this distance zone are based primarily on travel route viewers along 1-10 and local Tucson streets.

Historic and Cultural Resources

Unlike the heavily traveled Butterfield Trail, the Anza Trail represents an exploratory and short-lived colonization route that is "remembered primarily for the expeditions that forged the land route which lead to the founding of the city of San Francisco" (Gough 2012). Due to this circumstance, evidence for the physical remains for the trail blazed by the two Anza expeditions is essentially non-existent. However, the NPS has designated a trail route and identified a number of historically significant sites throughout Arizona and California.

Criteria for historic sites consist of historically significant resources that exhibit at least one direct association with the Anza Trail, the presence of historical remains, scenic qualities, and few intrusions. Interpretive sites include "at least one significant, direct connection to the Anza expeditions, and a high potential to commemorate the trail's significance or to interpret American Indian, Spanish colonial, or natural history related to the expedition, even though the sites may not retain their historic integrity" (NPS 1996).

Historically significant sites associated with the trail in Arizona, but not the trail analysis area, include historic missions and settlements such as the Mission San Xavier del Bac and various expedition campsites. NPS sites associated with the trail include Tumacácori National Historic Park and Casa Grande Ruins National Monument (NPS 1996).

Recreation

For the proposed Project, the Anza Trail is primarily associated with the developed area of Tucson; thus, data pertaining to ROS are not applicable. Project-level information relating to recreation viewers was used, as well as information in the CMP relating to desired visitor experiences and interpretive historic/cultural facilities.

The CMP identifies visitor use along the Anza Trail as opportunities to hike, bike, ride horseback, and tour by motor vehicle. Recreational retracement routes provide a multiple use, non-motorized, off-road continuous trail that connects federal components and high-potential segments. The Santa Cruz River is identified as an interpretive region or theme that corresponds to the six geographic areas along the trail between Nogales and San Francisco. This river park contains a developed recreational trail along the Santa Cruz River, which extends through the Tucson metropolitan area north through Marana. There are plans for recreational trail development within the river corridor within the Tucson metropolitan area. Within the Anza Trail analysis area, I-10 from Tucson to Marana is identified as the designated auto tour route (although it is not currently signed for the entire route) and is a Pima County–designated scenic road. An alternative auto tour route that generally follows Mission and Silverbell Roads travels near the historic corridor, and provides access to a recreational trail along the Santa Cruz River Parkway. There is a high-potential historic interpretive site in the Christopher Columbus Park north of the Santa Cruz River Park (interpretive signs and a new trailhead are located here).

Natural Resources

Since the Anza Trail primarily follows major river corridors in the analysis area, floodplains and wetland communities were common vegetation communities encountered by historic-era trail users. In the Sonoran Desert, the Santa Cruz River flowed both aboveground and belowground in large floodplains. Historically, water pumping for agricultural, residential, and urban use have contributed to the reduced flow, furthered by river channelization. Invasive tree species have also changed the vegetation community along the river. Threatened and endangered species that may occur within the trail analysis area would primarily be associated with cottonwood forest galleries or mesquite bosques habitat areas, which do not occur within the analysis area of the developed area of Tucson.

Other Landscape Elements

Cultural modifications within the Anza Trail analysis area include development associated with Tucson, such as industrial, commercial, and residential areas. Existing 115-kV and 138-kV transmission lines occur within portions of the Santa Cruz River parkway and are immediately adjacent to the Anza Trail. The I-10 corridor and channelized river modifications are also adjacent to the Anza Trail. The CMP acknowledges that many portions of the historic route pass through urban or highly developed areas where there is little or no semblance of how the landscape appeared during the Anza expedition.

Setting Description

The Anza Trail occurs within the developed area of Tucson, primarily along a channelized river corridor that parallels I-10 and several transmission lines, including the existing transmission line proposed by Southline as part of the Upgrade Section. The CMP acknowledges that many portions of the historic route pass through urban or highly developed areas where there is little or no semblance of how the landscape appeared during the Anza expedition. In this area, the Santa Cruz River Parkway is the developed Anza recreational trail. The adjacent mountain ranges and peaks surrounding Tucson may be the only landscapes associated with high scenic or visual quality for the Anza Trail in this area and are identified in the CMP as landscape features that correspond to expedition journals.

PRIMARY USE(S)

As defined in the CMP, "management objectives for visitor experience emphasize promotion of public understanding, appreciation, and enjoyment of the Anza Trail and outdoor recreation" (NPS 1996:2). These objectives are obtained by conveying the experience of the colonists in settings similar to those of 1775, providing accurate interpretation at certified locations, and linking historic sites and trail segments with a recreational trail and an auto route.

NATIONAL TRAIL RIGHT-OF-WAY AND MANAGEMENT CORRIDOR

The Anza Trail Right-of-way and Management Corridor is not explicitly identified in the CMP, with the exception of the following statement: "the Anza Trail is defined as a historic trail corridor, an area of varying widths depending upon the specifics of the terrain and the historic and archaeological evidence" (NPS 1996:3). The Anza Trail historic corridor and potential alignments of the Anza recreational trail are delineated in the Map Supplement to the CMP.

For NHTs, Federal Protection Components include high-potential route segments, high-potential sites, and auto tour routes.

NATIONAL TRAIL–RELATED NATIONAL REGISTER OF HISTORIC PLACES PROPERTIES

There are no National Trail–related NRHP properties within the Anza Trail analysis area.

Trails Recommended as Suitable for National Trail Designation

Butterfield Overland Mail and Stage Route (Historic)

The Butterfield Trail is currently being evaluated by the Secretary of the Interior (National Park Service) for potential nomination as an NHT. Resource protection and preservation of historic and cultural sites, as

well as associated scenery, are anticipated if this trail is congressionally designated. Similar to other National Trails, the values, characteristics, and settings for Butterfield Trail would likely include scenic resources, historic and cultural resources, recreation, and other resources as subsequently described.

VALUES, CHARACTERISTICS, AND SETTINGS

Scenic Resources

Scenic Quality Rating Units

The majority of the Butterfield Trail analysis area between Las Cruces, New Mexico, and Willcox, Arizona traverses Class C scenic quality associated with Chihuahuan semi-desert plains. These flat plains or valleys are characterized by low, sparse shrub vegetation that typically surrounds smaller mountain ranges and foothills. These flat valley areas include the Deming, Lordsburg, and San Simon valleys. The adjacent mountain ranges are characterized by unique pyramidal or conical peaks with steep rock cliffs. These ranges include the Big Burro Mountains and Peloncillo Mountains, which are associated with Class B scenic quality. Lordsburg Mesa is also associated with Class B scenic quality where rolling hills are dissected by drainages containing a greater variety of desert vegetation. In Tucson, the landscape setting is highly developed; therefore, SQRUs are not delineated.

Sensitivity Level Rating Units

The majority of the Butterfield Trail analysis area is associated with high sensitivity and includes Cooke's Range, the I-10 corridor, the Peloncillo Mountains, and the Rincon Mountains. Areas associated with moderate sensitivity include other major travel routes that connect to I-10. Low sensitivity lands generally occur in flat valley areas, with few local travel routes near Lordsburg and the Arizona–New Mexico border and the metropolitan Tucson area.

Distance Zones

The Butterfield Trail analysis area occurs within the foreground-middleground distance zone. Viewers associated with this distance zone include travel route viewers along I-10 and other major travel routes.

Historic and Cultural Resources

The historic southern route of the Butterfield Trail extended some 2,800 miles from St. Louis, Missouri and Memphis, Tennessee to San Francisco, California. From 1858 to 1861, the Butterfield Overland Mail Company operated a stagecoach line and provided mail service along this route. Although the company was short-lived, the route remained the principal southern travel corridor to the Pacific coast until the construction of the Southern Pacific Railroad in the early 1880s.

In general, remaining trail sections consist of discontinuous segments of various lengths that have been identified within a specific geographic area. On rural landscapes, these segments may appear as swales or depressions that may exhibit traces of wagon ruts, or may consist of modern road alignments superimposed on the trail. Although a modern road alignment may have obscured or eliminated all traces of a former trail, the trail segment may retain aspects of its historic integrity in regards to setting, feeling, and location.

In addition to physical remains of the trail, a number of culturally and historically significant sites, indirectly or directly associated with the operation of the trail, lie along its length across New Mexico and Arizona. These sites may include, but are not limited to, natural springs, stage stations, trail/survey

markers, military installations (camps and forts), and conflict sites (ambush/massacre and battlefield sites).

Selection of the trail route used by the Butterfield Overland Mail Company was contingent on a number of factors, including the availability of water. Due to this circumstance, many stage stations were constructed in close proximity to natural water sources, such as Cooke's Spring and Cow Springs (Ojo de las Vacas) in New Mexico, and Dragoon Springs in Arizona. In most cases, use of the water resources at these locations has occurred for centuries, if not millennia. In addition to their historical significance, springs such as these are generally considered spiritually significant to Native Americans.

During its period of operation (1858–1861), the Butterfield Overland Mail Company constructed a number of home and swing stage stations along its length to resupply stages with fresh provisions, drivers, and teams. In general, stage stations were constructed at 20-mile intervals; however, distances varied due to the terrain and availability of water. Swing stations, also called changing or relay stations, were used to provide a change of teams for the coaches. These stations typically consisted of a single house structure and corral, and were not intended to provide services or amenities to passengers. On average, stagecoaches would spend 10 minutes at a swing station while the teams were changed out (Couchman 1990). Home stations (e.g., Mesilla Station), which occurred with less frequency along the route, provided more substantial amenities; in addition to teamsters, home stations typically housed a stationmaster, herders, harness makers, and blacksmiths. These locations typically afforded stage passengers the opportunity to purchase additional supplies.

The Butterfield Trail route was also a primary transportation corridor for military operations in the New Mexico Territory, and remained so throughout much of the late nineteenth century. Four historic military installations have been identified along the trail length: Fort Fillmore (Mesilla), Fort Cummings, Camp Mimbres, and Fort Bowie. Fort Fillmore and Fort Bowie served as stagecoach stops during the period the Butterfield Overland Mail Company was in operation, and both remained important posts throughout the Civil War and subsequent Apache Wars. Fort Cummings and Camp Mimbres were constructed after the Confederacy's failed New Mexico Campaign of 1862. Fort Cummings, constructed to protect the stage route and to control the Apachean groups in the region, remained in operation until the end of the Apache Wars. Camp Mimbres appears to have served only as a temporary cavalry camp for elements of the California Column, and was abandoned shortly after the war.

A number of historically significant events associated with civilian and military conflicts occurred along the Butterfield Trail route through western New Mexico and eastern Arizona. Although the locations for some these events are known, the majority of sites remain speculative or unidentified. In New Mexico, one of the most notorious stretches of the Butterfield Trail consisted of a 4-mile span extending through Cooke's Canyon. Throughout the 1860s, and even as late as 1880, the pass was infamous for Apache attacks and ambushes that left an estimated 400 emigrants, soldiers, and civilians dead by the roadside. In Arizona, a series of events associated with the New Mexico Campaign (1862) occurred along the Butterfield Trail, including the First and Second Battle of Dragoon Springs, the Battle of Picacho Pass, and the Battle of Apache Pass.

Recreation and Other Resources

Based on previous CMPs developed for the Juan Bautista de Anza NHT, it is likely that trail-related interpretation and education opportunities would be encouraged and supported. Recreational opportunities would likely involve similar companion trails for hiking, biking, or horseback riding in order to convey the experience of the historic-era travelers, in settings similar to those that once existed along the Butterfield Trail. In Lordsburg, the Butterfield Trail crosses the CDNST, which may provide some interpretive opportunities for both National Trails. In Arizona, the Butterfield Trail crosses the Anza Trail and the Arizona Trail in the Tucson vicinity, although there are no existing interpretive opportunities for

the trail at these crossings. Major travel routes that cross the Butterfield Trail are limited to I-10 and State Route 26, which are considered a potential recreation resource value for this assessment.

Setting Description

A portion of the Butterfield Trail occurs primarily within the developed area of Lordsburg and the rural areas of Lordsburg Valley. Within the valley, several existing cultural modifications are evident, including the pipeline corridors to the south, I-10, and transmission line corridors to the north. The adjacent mountain ranges and peaks surrounding the Lordsburg Valley may be the only landscapes associated with high scenic or visual quality for the trail in this area. More natural landscape settings occur for the trail north of Lordsburg near the Big Burro Mountains; however, cultural modifications such as the existing transmission lines and Hidalgo Substation are dominant. Near the Arizona–New Mexico Border, the Butterfield Trail crosses through the Peloncillo Mountains, which are associated with high visual quality; however, an existing underground pipeline also passes through these mountains. In addition to the I-10 and rural residences associated with San Simon, this pipeline is one of the few cultural modifications in the trail analysis area. Portions of the West-wide Energy Corridor occur within the analysis area as well.

The trail analysis area near Vail includes several cultural modifications. Near the Butterfield Trail alignment, three 345-kV transmission lines traverse the analysis area and may parallel the trail alignment north of I-10. One underground pipeline also crosses the analysis area north of I-10. Cienega Creek and the adjacent mountain ranges and peaks surrounding this area south of Tucson are associated with high scenic or visual quality for the Butterfield Trail. Cultural modifications such as the I-10 and utility corridors are evident and dominate this loosely enclosed landscape. As the Butterfield Trail enters the urban area of Tucson, the landscape setting becomes increasingly developed and dominates the setting. The Butterfield Trail alignment under study also occurs within the developed area of Tucson, primarily within the Santa Cruz River, which is a channelized river corridor that is parallel to I-10 and several transmission lines. The adjacent mountain ranges and peaks surrounding Tucson may be the only landscapes associated with high scenic or visual quality for the historic trail in this area. More natural landscape settings occur for the Butterfield Trail alignment north of Tucson near the Tortolita Mountains; however, cultural modifications such as I-10 are evident, but not as dominant as the urban area of Tucson.

IMPACT ANALYSIS RESULTS

A summary table of each route group and the potential intersections with National Trails therein is included at the end of this section (table F-2). Map panels for visual and recreation resources (see figures F-4 through F-22); cultural, biological, and other natural resources (see figures F-22 through F-41); and composite impact assessment results (see figures F-42 through F-60) are provided at the end of this section.

Route Group 1: Afton Substation to Hidalgo Substation

National Historic Trails

There are no NHTs in the analysis area for route group 1.

National Scenic Trails

CONTINENTAL DIVIDE NATIONAL SCENIC TRAIL

Subroute 1.1

Scenic and Recreation Resources

The CDNST would be crossed by segment P4a (refer to table F-2, CDNST-1) of subroute 1.1. Table F-2 is provided at the end of this section. The point of intersection would be approximately 0.5 mile southwest of the existing Hidalgo Substation, on New Mexico State land. This area traverses Class C scenery associated with moderated sensitivity, where the CDNST crosses an existing 115-kV transmission line. The general form and line of the Project would replicate the existing line visually, although the scale of the facilities are different; thereby minimizing the resulting level of contrast to scenic resources that would be traversed. Low impacts to these scenic resources are anticipated because the level of change associated with the Project would be congruent with this landscape and its existing conditions.

Impacts are anticipated to be low and minor to the recreation resources in the analysis area for the Project. Low impacts are anticipated because the Project would be located along previously occupied ROWs within the Lordsburg Valley, and would not conflict with any recreation management prescribed by the Mimbres RMP. There are no trailheads, informational kiosks, or recreational opportunities of national significance along the segment of the CDNST that would be intersected by segment P4a. The Mimbres RMP specifies that "facilities will not be located parallel to the CDNST" (BLM 1993:5-49) The proposed crossing of the CDNST by segment P4a would be a perpendicular crossing, and the Project segment would not parallel the CDNST for any distance.

The CDNST is a recreation and conservation-oriented corridor that "provides high quality scenic, primitive hiking and horseback riding opportunities and to conserve natural, historic, and cultural resources along the CDNST corridor" (FS 2009:4). The trail analysis area northeast of Lordsburg is associated with the rural and existing utility development and is not reflective of a scenic or primitive hiking experience in terms of landscape setting. It is anticipated that primitive hiking or horseback riding recreation settings would not be substantially degraded as a result of the Project. Further, the construction, operation, and maintenance of the proposed Project would not substantially interfere with the use and enjoyment of the CDNST at this location.

The Project would not limit the agency's ability to manage the trail for the protection and conservation of natural, historic, or cultural resources, because these resources would not be substantially impacted by the Project within the analysis area.

Historic and Cultural Resources

The 2009 Comprehensive Plan does not identify specific historic or cultural resources associated with this segment of the CDNST.

Trails Recommended as Suitable for National Trail Designation

BUTTERFIELD OVERLAND MAIL AND STAGE ROUTE (HISTORIC)

Subroutes 1.1 and 1.2

Scenic and Recreation Resources

Just south of the Langford Mountains, approximately 10 miles east of Lordsburg, segment P2 (refer to table F-2, Butterfield-1) would cross the Butterfield Trail, in Class C scenery associated with high to moderate sensitivity while in the same viewshed as an existing 115-kV transmission line and I-10. Similarly, segment S8 (refer to table F-2, Butterfield-2) of subroute 1.2 would cross the Butterfield Trail in Class C scenery, paralleling the existing highway corridor for New Mexico State Route (NM) 113. Both intersections would occur on New Mexico State land. High sensitivity is associated with Big Burro Mountain landscape to the north and would result in low-moderate impacts to these scenic resources within the trail analysis area. Moderate sensitivity is associated with the foothills of the Lordsburg Valley plains to the west, and would result in low impacts to these scenic resources for a small portion of the Project within the trail analysis area. Travel route viewers along I-10 where the Butterfield Trail crosses the highway would have direct and unobstructed views of the Project in the foreground/middleground; however, it would be viewed in context with the existing utility corridor, resulting in low-moderate impacts. Although the scale of the proposed facilities would be different, the Project would replicate these existing visual features, thereby reducing the level of contrast and resulting in low impacts to scenic resources of the Butterfield Trail at this location.

Since there are no known recreation values associated with the Butterfield Trail at these segments, impacts are not anticipated.

Historic and Cultural Resources

The intersections with the proposed Project at these locations would not affect the ability to manage the trail if designated an NHT, nor would it require relocation of a National Trail Management Corridor. Subroutes 1.1 and 1.2 would have minor impacts on the characteristics that make the trail worthy of designation as an NHT. Segment P2 (refer to table F-2, Butterfield-1 and figure F-4) would cross the Butterfield Trail adjacent to a Butterfield Trail Related Segment. Likewise, the Project could have minor impacts on potential Federal Protection Components, including high-potential route segments located on public land, as well as to potential NRHP-listed properties, including remnants and artifacts from the associated period of use that may be eligible to or listed on the NRHP, which qualify as possible high-potential historic sites or high-potential route segments. The Project would not limit the agency's ability to manage the trail for the purpose of identifying and protecting the historic route and its historic remnants and artifacts for public use and enjoyment. The Mimbres RMP specifies that "facilities will not be located within ¼ mile of any stage station on the Butterfield Trail." (BLM 1993:5-47). The nearest stage station (Mesilla) is located in the city of Las Cruces, approximately 100 miles to the east. Based on these criteria, the Project would have a low impact on high-sensitivity, historic segments or sites associated with the Butterfield Trail as a proposed NHT, at this location.

Biological, Natural, and Other Resources

Impacts to biological or natural resources associated with the trail are anticipated to be low for the Project, because there are no identified biological, geological, and scientific resources for the trail analysis area. Impacts and ground disturbance where the Project would parallel an existing utility corridor can be minimized through the application of best management practices during construction (subroutes 1.1 and 1.2).

Route Group 1 Summary

Route group 1 would result in low to low-moderate impacts to inventoried resources, values, and settings of the CDNST and Butterfield Trail. The majority of the Project would parallel and be viewed in context with several existing transmission lines and facilities as well as the transportation corridor along NM 113. Overall, based on the results of the impact assessment, subroutes 1.1 and 1.2 would not substantially compromise the CDNST or Butterfield Trail's values, characteristics, and settings.

Table F-2 below provides a summary of the proposed Project's potential intersections with National Trails for all route groups.

Table F-2. National Trails System Resource Inventory Data—All Route Groups

Intersection Name	Land Ownership	Proposed Southline Segment or Local Alternative that would Cross Trail	Route Group	Subroute
Butterfield-1	New Mexico State Land Department	P2 (included under Agency Preferred Alternative)	Route group 1	Subroute 1.1
Butterfield-2	New Mexico State Land Department	S8	Route group 1	Subroute 1.2
CDNST-1	New Mexico State Land Department	P4a (included under Agency Preferred Alternative)	Route group 1	Subroute 1.1
CDNST-2	BLM – Las Cruces District	Local Alternative D	Route group 2	Route group 2 Local Alternatives
Butterfield-3	New Mexico State Land Department	P4c	Route group 2	Subroute 2.1
Butterfield-4	BLM – Las Cruces District	Local Alternative LD2	Route group 2	Route group 2 Local Alternatives
Butterfield-5	BLM – Las Cruces District	Local Alternative LD3a	Route group 2	Route group 2 Local Alternatives
Butterfield-6	BLM – Safford Field Office	P5b	Route group 2	Subroute 2.1
Butterfield-7	BLM – Safford Field Office	Local Alternative E	Route group 2	Subroute 2.1
Butterfield-8	Private	LD1	Route group 2	Route group 2 Local Alternatives
Butterfield-9	Private	U1a (included under Agency Preferred Alternative)	Route group 3	Subroute 3.1
Butterfield-10	Arizona State Land Department	Local Alternative H	Route group 3	Route group 3 Local Alternatives
Butterfield-11	Arizona State Land Department	U2 (included under Agency Preferred Alternative)	Route group 3	Subroute 3.1
Butterfield-12	Private	U2 (included under Agency Preferred Alternative)	Route group 3	Subroute 3.1
Butterfield-13	Private	Local Alternative H	Route group 3	Route group 3 Local Alternatives
ANST-1	Arizona State Land Department	U3a (included under Agency Preferred Alternative)	Route group 4	Subroute 4.1
Anza-1	Private	U3c	Route group 4	Subroute 4.1

Table F-2. National Trails System Resource Inventory Data—All Route Groups (Continued)

Intersection Name	Land Ownership	Proposed Southline Segment or Local Alternative that would | Cross Trail	Route Group	Subroute
Anza-2	Private	Local Alternative TH3 Option B	Route group 4	Route group 4 Local Alternatives
Anza-3	Private	Local Alternative TH3b	Route group 4	Route group 4 Local Alternatives
Anza-4	Private	Local Alternative TH3b	Route group 4	Route group 4 Local Alternatives
Butterfield-14	Private	Local Alternative TH3b	Route group 4	Route group 4 Local Alternatives
Anza-5	Private	Local Alternative TH3b	Route group 4	Route group 4 Local Alternatives
Anza-6	Private	U3i (included under Agency Preferred Alternative)	Route group 4	Subroute 4.1
Butterfield-15	Private	U3h (included under Agency Preferred Alternative)	Route group 4	Subroute 4.1
Butterfield-16	Private	U3i (included under Agency Preferred Alternative)	Route group 4	Subroute 4.1
Anza-7	Private	U3i (included under Agency Preferred Alternative)	Route group 4	Subroute 4.1
Anza-8	Arizona State Land Department	U3k (included under Agency Preferred Alternative)	Route group 4	Subroute 4.1
Butterfield-17	Private	U3l (included under Agency Preferred Alternative)	Route group 4	Subroute 4.1

Route Group 2: Hidalgo Substation to Apache Substation

National Historic Trails

There are no NHTs in the analysis area for route group 2.

National Scenic Trails

CONTINENTAL DIVIDE NATIONAL SCENIC TRAIL

Route Group 1 Local Alternatives

Scenic and Recreation Resources

The CDNST would be crossed in by local alternative D (refer to table F-2, CDNST-2) of route group 1 local alternatives. The point of intersection would be approximately 2 miles south of the town of Lordsburg, New Mexico, 0.5 mile south of an existing utility corridor on BLM-land managed by the Las Cruces District (Mimbres RMP).

The analysis area for local alternative D traverses Class B scenery associated with moderate sensitivity. The general form and line of the Project would introduce a new line visually, changing the scale but within foreground views of similar facilities; thereby minimizing the resulting level of contrast to scenic resources that would be traversed. Low impacts to these scenic resources are anticipated because the level of change associated with the Project would be congruent with this landscape and its existing conditions.

Impacts are anticipated to be low and minor to the recreation resources in the analysis area for the Project. Low impacts are anticipated because the Project would be located along previously occupied ROWs within the Lordsburg Valley, and would not conflict with any recreation management prescribed by the Mimbres RMP. There are no trailheads, informational kiosks, or recreational opportunities of national significance along the segment of the CDNST that would be intersected by segment P4a. The Mimbres RMP specifies that "facilities will not be located parallel to the CDNST" (BLM 1993:5-49). The proposed crossing of the CDNST by alternative D would be a perpendicular crossing and the Project alternative route would not parallel the CDNST for any distance.

Historic and Cultural Resources

The 2009 Comprehensive Plan does not identify specific historic or cultural resources associated with this segment of the CDNST.

Trails Recommended as Suitable for National Trail Designation

BUTTERFIELD OVERLAND MAIL AND STAGE ROUTE (HISTORIC)

Subroute 2.1

Scenic and Recreation Resources

Approximately 6 miles east of Lordsburg, segment P4c (refer to table F-2, Butterfield-3) would cross the Butterfield Trail on New Mexico State land, in Class C scenery associated with high to moderate sensitivity while in the same viewshed as an existing 115-kV transmission line and I-10. Segment P5b (refer to table F-2, Butterfield-6) of subroute 2.1would cross the Butterfield Trail in Class B scenery in the Peloncillo Mountains on BLM land. High sensitivity is associated with the Lordsburg landscape to the east would result in low-moderate impacts to these scenic resources within the trail analysis area. Moderate sensitivity is associated with the foothills of the Peloncillo Mountains to the west, and would result in low impacts to these scenic resources for a small portion of the Project within the trail analysis area. Travel route viewers along I-10 where the Butterfield Trail crosses the highway would have direct and unobstructed views of the Project in the foreground/middleground; however, it would be viewed in context with the existing utility corridor, resulting in low-moderate impacts. Although the scale of the proposed facilities would be different, the Project would replicate these existing visual features, thereby reducing the level of contrast and resulting in low impacts to scenic resources of the Butterfield Trail at this location.

Since there are no known recreation values associated with the Butterfield Trail at these segments, impacts are not anticipated.

Historic and Cultural Resources

The intersections with the proposed Project at these locations would not affect the ability to manage the trail if designated an NHT, nor would it require relocation of a National Trail Management Corridor, since one has not been designated. Subroute 2.1 would have moderate impacts on the characteristics that make the trail worthy of designation as an NHT. Segment P5b (refer to table F-2, Butterfield-6 and figure

F-11) would cross the Butterfield Trail adjacent to a Butterfield Trail Related Segment. Likewise, the Project could have moderate impacts on potential Federal Protection Components, including high-potential route segments located on public land, as well as on potential NHT properties, including remnants and artifacts from the associated period of use that may be eligible for or listed on the NRHP to qualify as possible high-potential historic sites or high-potential route segments. The Project would not limit the agency's ability to manage the trail for the purpose of identifying and protecting the historic route and its historic remnants and artifacts for public use and enjoyment. The Mimbres RMP specifies that "facilities will not be located within ¼ mile of any stage station on the Butterfield Trail" (BLM 1993:5-47#). The nearest stage station is located at Fort Bowie, approximately 20 miles to the southwest. Based on these criteria, the Project would have a low impact on high-sensitivity, historic segments or sites associated with the Butterfield Trail at this location.

Biological, Natural, and Other Resources

Impacts to biological or natural resources associated with the trail are anticipated to be low for the Project, because there are no identified biological, geological, and scientific resources for the trail analysis area. Impacts and ground disturbance where the Project would parallel an existing utility corridor can be minimized through the application of best management practices during construction.

Subroute 2.2

Scenic and Recreation Resources

Just southwest of the Peloncillo Mountains, approximately 1 miles north of I-10, alternative E (refer to table F-2, Butterfield-7) of subroute 2.2 would cross the Butterfield Trail, in Class C scenery associated with high to moderate sensitivity while in the same viewshed as I-10. The intersection would occur on BLM lands managed by the Safford Field Office. High sensitivity associated with the Peloncillo Mountains landscape to the north would result in low-moderate impacts to these scenic resources within the trail analysis area. Moderate sensitivity is associated with the foothills of the San Simon Valley plains to the west, and would result in low impacts to these scenic resources for a small portion of the Project within the trail analysis area. Travel route viewers along I-10 where the Butterfield Trail crosses the highway would have direct and unobstructed views of the Project in the foreground/middleground; however, it would be viewed in context with the existing utility corridor, resulting in low-moderate impacts. Although the scale of the proposed facilities would be different, the Project would replicate these existing visual features, thereby reducing the level of contrast and resulting in low impacts to scenic resources of the Butterfield at this location.

Since there are no known recreation values associated with the Butterfield Trail at these segments, impacts are not anticipated.

Historic and Cultural Resources

The intersections with the proposed Project at these locations would not affect the ability to manage the trail if designated an NHT, nor would it require relocation of a National Trail Management Corridor. Subroute 2.2 would have minor impacts on the characteristics that make the trail worthy of designation as an NHT. Likewise, the Project could have minor impacts on potential Federal Protection Components, including high-potential route segments located on public land, as well as on potential NHT properties, including remnants and artifacts from the associated period of use that may be eligible for or listed on the NRHP to qualify as possible high-potential historic sites or high-potential route segments. The Project would not limit the agency's ability to manage the trail for the purpose of identifying and protecting the historic route and its historic remnants and artifacts for public use and enjoyment. The Safford RMP does not include resource management prescriptions at this location. The nearest stage station is located at Fort

Bowie, approximately 18 miles to the southwest. Based on these criteria, the Project would have a low impact on high-sensitivity, historic segments or sites associated with the Butterfield Trail at this location.

Biological, Natural, and Other Resources

Impacts to biological or natural resources associated with the trail are anticipated to be low for the Project, because there are no identified biological, geological, and scientific resources for the trail analysis area. Impacts and ground disturbance where the Project would parallel an existing utility corridor can be minimized through the application of best management practices during construction.

Route Group 2 Local Alternatives

Scenic and Recreation Resources

Just west of the Lordsburg playa, approximately 15 miles west of Lordsburg, local alternative LD3a (refer to table F-2, Butterfield-5) would cross the Butterfield Trail, in Class C scenery associated with high to moderate sensitivity. The viewshed does not include other transmission lines or pipelines. The intersection would occur on BLM lands managed by the Las Cruces District (Mimbres RMP). High sensitivity is associated with Peloncillo Mountains landscape to the west and would result in low-moderate impacts to these scenic resources within the trail analysis area. Moderate sensitivity is associated with the Lordsburg playa to the east of the Project within the trail analysis area. Travel route viewers along I-10 where the Butterfield Trail crosses the highway would have partially unobstructed views of the Project in the background; however, it would be viewed in context of other existing utility corridors also visible in the background, resulting in low-moderate impacts. Although the scale of the proposed facilities would be different, the Project would replicate these existing visual features, thereby reducing the level of contrast and resulting in low impacts to scenic resources of the Butterfield Trail at this location.

Local alternative LD1 (refer to table F-2, Butterfield-8) would intersect the Butterfield Trail on privately owned lands, adjacent to cultivated agricultural fields. Local alternative LD1 would intersect the Butterfield Trail in Class C scenery associated with high to moderate sensitivity while in the same viewshed as I-10. High sensitivity associated with the Peloncillo Mountains landscape to the north would result in low-moderate impacts to these scenic resources within the trail analysis area. Moderate sensitivity is associated with the foothills of the San Simon Valley plains to the west, and would result in low impacts to these scenic resources for a small portion of the Project within the trail analysis area. Travel route viewers along I-10 where the Butterfield Trail crosses the highway would have direct and unobstructed views of the Project in the foreground/middleground; however, it would be viewed in context with the existing utility corridor, resulting in low-moderate impacts. Although the scale of the proposed facilities would be different, the Project would replicate these existing visual features, thereby reducing the level of contrast and resulting in low impacts to scenic resources of the Butterfield Trail at this location.

Local alternative LD2 (refer to table F-2, Butterfield-4) would intersect the Butterfield Trail on BLM-managed lands. Local alternative LD2 would cross and roughly parallel the Butterfield Trail, in Class C scenery associated with high to moderate sensitivity. The viewshed does not include other transmission lines or pipelines. Local alternative LD2 would cross between the north and south Lordsburg Playas, somewhat paralleling the Butterfield Trail (see figure F-9). The scale of the proposed facilities would be different, and the Project would introduce new visual features, thereby increasing the level of contrast and resulting in moderate impacts to scenic resources of the Butterfield Trail at this location. The crossing of the Butterfield Trail by LD2 would be in direct conflict with management prescriptions of the Mimbres RMP, which states ROW “facilities will not be located parallel to the CDNST or Butterfield Trail” (BLM 1993). The Butterfield Trail is located on BLM lands at the Butterfield-4 crossing, and thus this

management prescription would apply. Impacts to the Butterfield trail along LD2 would be major and long-term, since the Project would parallel the trail for approximately 3 miles.

Historic and Cultural Resources

The intersections with the proposed Project at these locations would not affect the ability to manage the trail if designated an NHT, nor would it require relocation of a National Trail Management Corridor. Local alternatives LD1, LD2, and LD3a would have minor to moderate impacts on the characteristics that make the trail worthy of designation as an NHT. Likewise, the Project could have minor impacts on potential Federal Protection Components, including high-potential route segments located on public land, as well as to potential NRHP properties, including remnants and artifacts from the associated period of use that may be eligible for or listed on the NRHP to qualify as possible high-potential historic sites or high-potential route segments. The Project would not limit the agency's ability to manage the trail for the purpose of identifying and protecting the historic route and its historic remnants and artifacts for public use and enjoyment. The Mimbres RMP specifies that "facilities will not be located within ¼ mile of any stage station on the Butterfield Trail" (BLM 1993:5-47). The nearest stage station is located at Fort Bowie approximately 30 miles to the southwest. Based on these criteria, the Project would have a low impact on high-sensitivity, historic segments or sites associated with the Butterfield Trail at this location.

Biological, Natural, and Other Resources

Impacts to biological or natural resources associated with the trail are anticipated to be low for the Project, because there are no identified biological, geological, and scientific resources for the trail analysis area. Impacts and ground disturbance where the Project would parallel an existing utility corridor can be minimized through the application of best management practices during construction.

Route Group 2 Summary

Route group 2 would result in low impacts to inventoried resources, values, and settings of the CDNST and Butterfield Trail. The majority of the Project would parallel and be viewed in context with several existing transmission lines and facilities as well as the transportation corridor along NM 113. Of route group 2 potential intersections with trails, local alternative LD2 would have the greatest impacts to the Butterfield Trail since it would occur in areas that do not contain existing transmission lines, have been identified as avoidance areas by the Mimbres RMP, and would parallel (as opposed to crossing perpendicularly) the Butterfield Trail for approximately 4 miles.

Overall, based on the results of the impact assessment, route group 2 would not substantially compromise the CDNST or Butterfield Trail's values, characteristics, and settings.

Route Group 3: Apache Substation to Pantano Substation

National Historic Trails

There are no NHTs in the analysis area for route group 3.

National Scenic Trails

There are no NSTs in the analysis area for route group 3.

Trails Recommended as Suitable for National Trail Designation

BUTTERFIELD OVERLAND MAIL AND STAGE ROUTE (HISTORIC)

Subroute 3.1

Scenic and Recreation Resources

Approximately 17 miles southwest of the town of Willcox, Arizona, segment U1a (refer to table F-2, Butterfield-9) would cross the Butterfield Trail on privately owned land, in Class B scenery associated with high to moderate sensitivity while in the same viewshed as an existing 69-kV transmission line and I-10. Travel route viewers along I-10 where the Butterfield Trail crosses the highway would have direct and unobstructed views of the Project in the foreground/middleground; however, it would be viewed in context with the existing utility corridor, resulting in low-moderate impacts. Although the scale of the proposed facilities would be different, the Project would replicate these existing visual features, thereby reducing the level of contrast and resulting in low impacts to scenic resources of the Butterfield Trail at this location. Impacts for both areas of the Butterfield Trail analysis area that would intersect with segment U2 (refer to table F-2, Butterfield-11 and Butterfield-12) of subroute 3.1, would be similar except the intersections would occur on Arizona State lands. However, subroute 3.1 would parallel the Butterfield Trail for approximately four miles. There are no management prescriptions in place that would prohibit actions from paralleling the Butterfield Trail since the Butterfield Trail management planning is ongoing, and since these locations are located upon Arizona State and private lands that do not currently include management prescriptions for the Butterfield Trail.

Since there are no known recreation values associated with the Butterfield Trail at these segments, impacts are not anticipated.

Historic and Cultural Resources

The intersections with the proposed Project at these locations would not affect the ability to manage the trail if designated an NHT, nor would it require relocation of a National Trail Management Corridor. Subroute 3.1 would have minor impacts on the characteristics that make the trail worthy of designation as an NHT. Likewise, the Project could have minor impacts on potential Federal Protection Components, including high-potential route segments located on public land, as well as to potential NHT properties, including remnants and artifacts from the associated period of use that may be eligible for or listed on the NRHP to qualify as possible high-potential historic sites or high-potential route segments. The Project would not limit the agency's ability to manage the trail for the purpose of identifying and protecting the historic route and its historic remnants and artifacts for public use and enjoyment. None of the intersections of the Butterfield Trail with subroute 3.1 would occur on BLM-managed lands. The nearest stage station is located at Fort Bowie, approximately 50 miles to the east. Based on these criteria, the Project would have a low impact on high-sensitivity, historic segments or sites associated with the Butterfield Trail at this location.

Biological, Natural, and Other Resources

Impacts to biological or natural resources associated with the trail are anticipated to be low for the Project, because there are no identified biological, geological, and scientific resources for the trail analysis area. Impacts and ground disturbance where the Project would parallel an existing utility corridor can be minimized through the application of best management practices during construction.

Route Group 3 Local Alternatives

Scenic and Recreation Resources

Approximately 1 mile north of I-10, alternative H (refer to table F-2, Butterfield-10 and Butterfield-13) would cross the Butterfield Trail in two separate locations, on Arizona State land and on private land, respectively, in Class B scenery associated with high to moderate sensitivity while in the same viewshed as an existing 230-kV transmission line and I-10. Moderate sensitivity is associated with the foothills of the Rincon Mountains to the northwest, and would result in low impacts to these scenic resources for a small portion of the Project within the trail analysis area. Travel route viewers along I-10 where the Butterfield Trail crosses the highway would have direct and unobstructed views of the Project in the foreground/middleground; however, it would be viewed in context with the existing utility corridor, resulting in low-moderate impacts. Although the scale of the proposed facilities would be different, the Project would replicate these existing visual features, thereby reducing the level of contrast and resulting in low impacts to scenic resources of the Butterfield Trail at this location.

Since there are no known recreation values associated with the Butterfield Trail at these segments, impacts are not anticipated.

Historic and Cultural Resources

The intersections with the proposed Project at these locations would not affect the ability to manage the trail if designated an NHT, nor would it require relocation of a National Trail Management Corridor. Alternative H would have minor impacts on the characteristics that make the trail worthy of designation as an NHT. Likewise, the Project could have minor impacts on potential Federal Protection Components, including high-potential route segments located on public land, as well as to potential NHT properties, including remnants and artifacts from the associated period of use that may be eligible for or listed on the NRHP to qualify as possible high-potential historic sites or high-potential route segments. The Project would not limit the agency's ability to manage the trail for the purpose of identifying and protecting the historic route and its historic remnants and artifacts for public use and enjoyment. The nearest stage station is located at Fort Bowie, approximately 100 miles to the east. Based on these criteria, the Project would have a low impact on high-sensitivity, historic segments or sites associated with the Butterfield Trail at this location.

Biological, Natural, and Other Resources

Impacts to biological or natural resources associated with the trail are anticipated to be low for the Project, because there are no identified biological, geological, and scientific resources for the trail analysis area. Impacts and ground disturbance where the Project would parallel an existing utility corridor can be minimized through the application of best management practices during construction.

Route Group 3 Summary

Route group 3 would result in low impacts to inventoried resources, values, and settings of the Butterfield Trail. The majority of the Project would parallel and be viewed in context with several existing transmission lines and facilities as well as the transportation corridor along I-10. Overall, based on the results of the impact assessment, route group 3 would not substantially compromise the Butterfield Trail's values, characteristics, and settings.

Route Group 4: Pantano Substation to Saguaro Substation

National Scenic Trails

ARIZONA NATIONAL SCENIC TRAIL

Subroute 4.1

Scenic and Recreation Resources

Approximately 10 miles southeast of the town of Vail, Arizona, segment U3a (refer to table F-2, ANST-1) would cross the Arizona Trail on Arizona State land, in Class B scenery associated with high to moderate sensitivity while in the same viewshed as an existing 115-kV transmission line and I-10. Users of the Arizona Trail would have direct foreground views of the proposed Project; however, it would be viewed in context with the existing utility corridor, resulting in low impacts. Other recreation areas in the analysis area include Cienega Creek Natural Preserve, Bar V Ranch, Empire Ranch, and Davidson Canyon. Although the scale of the proposed facilities would be different, the Project would replicate these existing visual features, thereby reducing the level of contrast and resulting in low impacts to scenic resources of the Arizona Trail at this location.

Historic and Cultural Resources

Since there are no known recreation values associated with the Arizona Trail at these segments, impacts are not anticipated.

Biological, Natural, and Other Resources

Cienega Creek is a perennial water source identified as a Pima County Biological Core area, which would include segment U3a. Although the segment would span this area and not include transmission line towers, minor impacts are anticipated since special-status species are supported by the Biological Core area, as well as the presence of riparian areas.

Other impacts to biological or natural resources associated with the Arizona Trail are anticipated to be low for the Project, because there are no identified geological and scientific resources for the trail within the analysis area that would include the intersection with segment U3a. Impacts and ground disturbance where the Project would parallel an existing utility corridor can be minimized through the application of best management practices during construction.

National Historic Trails

JUAN BAUTISTA DE ANZA NATIONAL HISTORIC TRAIL

Subroute 4.1

Scenic and Recreation Resources

Segments U3c (refer to table F-2, Anza-1), U3i (refer to table F-2, Anza-6 and Anza-7), and U3k (refer to table F-2, Anza-8), would cross the Anza Trail in areas that already contain 115-kV transmission lines. Subroute 4.1 would cross the Anza Trail in the Tucson area in four locations (segment U3i would be crossed twice in separate locations), all upon private land, except for segment U3k which would intersect the Anza Trail on Arizona State land. The scenery has not been classified in these areas, but generally has low sensitivity that is associated with highly urbanized areas. Travel route viewers along I-10 and local

Tucson streets where the Anza Trail crosses would have direct and unobstructed views of the Project in the foreground; however, it would be viewed in context with the existing utility corridor and urban areas, resulting in low impacts. Although the scale of the proposed facilities would be different, the Project would replicate these existing visual features, thereby reducing the level of contrast and resulting in low impacts to scenic resources of the Anza Trail at these locations.

There are no known recreation values associated with the Anza Trail at these segments that would be intersected by the proposed Project; therefore impacts are not anticipated.

Historic and Cultural Resources

None of the sites identified by the Class I records review would be impacted by the proposed intersections of the Anza Trail. No high-potential sites or segments of the Anza Trail have been identified along subroute 4.1 that would be impacted by the proposed intersections of the Anza Trail. The NHT visual analysis for the Anza Trail examined known trail-related cultural resources within 3 miles of the centerlines; no sites were identified in the analysis area.

Biological, Natural, and Other Resources

Impacts to biological or natural resources associated with the Anza Trail are anticipated to be low for subroute 4.1, because there are no identified biological, geological, or scientific resources for the Anza Trail in the analysis area. Further, subroute 4.1 would intersect the Anza Trail in largely urbanized areas of metropolitan Tucson, and no BLM biological or natural land management prescriptions are in place within the analysis area.

Route Group 4 Local Alternatives

Scenic and Recreation Resources

Local alternatives TH3 Option B (refer to table F-2, Anza-2) and TH3b (refer to table F-2, Anza-3, Anza-4, and Anza-5) would cross the Anza Trail in areas that already contain 115-kV transmission lines (local alternative TH3b would cross the Anza Trail three times in separate locations). Route group 4 Alternatives would cross the Anza Trail in the Tucson area in four locations, all on private land. The scenery has not been classified in these areas, but generally has low sensitivity that is associated with highly urbanized areas. Travel route viewers along I-10 and local Tucson streets where the Anza Trail crosses would have direct and unobstructed views of the Project in the foreground; however, it would be viewed in context with the existing utility corridor and urban areas, resulting in low impacts. Although the scale of the proposed facilities would be different, the Project would replicate these existing visual features, thereby reducing the level of contrast and resulting in low impacts to scenic resources of the Anza Trail at these locations.

There are no known recreation values associated with the Anza Trail at these segments that would be intersected by the proposed Project; therefore impacts are not anticipated.

Historic and Cultural Resources

No high-potential sites or segments of the Anza Trail have been identified along the route group 4 local alternatives that would be impacted by the proposed intersections of the Anza Trail. The NHT visual analysis for the Anza Trail examined known trail-related cultural resources within 3 miles of the centerlines; no sites were identified in the analysis area.

Biological, Natural, and Other Resources

Impacts to biological or natural resources associated with the Anza Trail are anticipated to be low for the route group 4 local alternatives, because there are no identified biological, geological, or scientific resources for the Anza Trail in the analysis area. Further, the route group 4 local alternatives would intersect the Anza Trail in largely urbanized areas of metropolitan Tucson, and no BLM biological or natural land management prescriptions are in place within the analysis area.

Trails Recommended as Suitable for National Trail Designation

BUTTERFIELD OVERLAND MAIL AND STAGE ROUTE (HISTORIC)

Subroute 4.1 and Local Alternatives

Scenic and Recreation Resources

The proposed Project would cross the Butterfield Trail in the Tucson area in four locations, all upon private land. Local alternative TH3b (refer to table F-2, Butterfield-14), and segments U3h (refer to table F-2, Butterfield-15), U3i (refer to table F-2, Butterfield-16), and U3l (refer to table F-2, Butterfield-17) would cross the Butterfield Trail in areas that already contain 115-kV transmission lines. The scenery has not been classified in these areas, but generally has low sensitivity that is associated with highly urbanized areas. Travel route viewers along I-10 and local Tucson streets where the Butterfield Trail crosses would have direct and unobstructed views of the Project in the foreground; however, it would be viewed in context with the existing utility corridor and urban areas, resulting in low impacts. Although the scale of the proposed facilities would be different, the Project would replicate these existing visual features, thereby reducing the level of contrast and resulting in low impacts to scenic resources of the Butterfield Trail at these locations.

Since there are no known recreation values associated with the Butterfield Trail at these segments, impacts are not anticipated.

Historic and Cultural Resources

The intersections with the proposed Project at these locations would not affect the ability to manage the trail if designated an NHT, nor would it require relocation of a National Trail Management Corridor since none has been designated. Subroute 4.1 and route group 4 Local Alternatives would have minor impacts on the characteristics that make the trail worthy of designation as an NHT. Likewise, the Project could have minor impacts on potential Federal Protection Components, including high-potential route segments located on public land, as well as to potential NHT properties, including remnants and artifacts from the associated period of use that may be eligible for or listed on the NRHP to qualify as possible high-potential historic sites or high-potential route segments. The Project would not limit the agency's ability to manage the trail for the purpose of identifying and protecting the historic route and its historic remnants and artifacts for public use and enjoyment. The nearest stage station is located at Fort Bowie, approximately 100 miles to the east. Based on these criteria, the Project would have a low impact on high-sensitivity, historic segments or sites associated with the Butterfield Trail at this location.

Biological, Natural, and Other Resources

Impacts to biological or natural resources associated with the Anza Trail are anticipated to be low for subroute 4.1 and local alternatives, because there are no identified biological, geological, or scientific resources for the Butterfield Trail in the analysis area. Further, the route group 4 local alternatives would

intersect the Butterfield Trail in largely urbanized areas of metropolitan Tucson, and no BLM biological or natural land management prescriptions are in place within the analysis area.

Route Group 4 Summary

Route group 4 would result in low impacts to inventoried resources, values, and settings of the Arizona Trail, Anza Trail, and Butterfield Trail. The majority of the Project would parallel and be viewed in context with several existing transmission lines and facilities as well as the transportation corridor along I-10. Overall, based on the results of the impact assessment, route group 4 would not substantially compromise the Arizona Trail, Anza Trail, and Butterfield Trail's values, characteristics, and settings.

Agency Preferred Alternative

Short-term, minor impacts would occur at the intersections of segments P2, P4a, U1a, U2, U3a, U3i, U3h, U3k, and U3l and National Trails during construction, as described above.

National Scenic Trails

The CDNST would be crossed once by the Agency Preferred Alternative, at segment P4a; impacts would be the same as described under subroute 1.1 above (refer to figures F-6, F-25, and F-44).

The Arizona Trail would be crossed once by the Agency Preferred Alternative, at segment U3a; impacts would be the same as described under subroute 4.1 above (refer to figures F-17, F-36, and F-55).

National Historic Trails

The Anza Trail would be crossed three times by the Agency Preferred Alternative; twice by segment U3i and once by segment U3k; impacts would be the same as described under subroute 4.1 above (refer to figures F-20, F-22, F-39, F-41, F-58, and F-60)

Trails Recommended as Suitable for National Trail Designation

The Butterfield Trail would be crossed seven times by the Agency Preferred Alternative. Impacts of the intersection of segment P2 and the Butterfield Trail would be the same as described under subroute 1.1 above (refer to figures F-4, F-23, and F-42) Impacts of the intersection of segment U1a and the Butterfield Trail would be the same as described under subroute 3.1 above (refer to figures F-13, F-32, and F-51). Segment U2 would cross the Butterfield Trail twice; impacts would be the same as described under subroute 3.1 above (refer to figures F-14, F-15, F-33, F-34, F-52, and F-53). The Butterfield Trail would be crossed by segments U3h, U3i, and U3l; impacts at these intersections would be the same as described under subroute 4.1 (refer to figures F-20, F-21, F-39, F-40, F-58, and F-59).

Cumulative Effects

In addition to direct and indirect effects, this section addresses the cumulative effects of the Project that would result from the construction and operation of the Project, combined with other reasonably foreseeable future actions. For detailed process and methods for analysis, scoping and Project issues, parameters, identification of past, present, future, and reasonably foreseeable future actions, land uses, and projects, including energy development forecast analysis, see section 4.21 of this DEIS.

Cumulative effects to National Scenic and Historic Trails were evaluated in the context of a trail's resources, qualities, values, associated settings, and primary use or uses in a manner similar to the impacts described under "Impact Analysis Results" in this appendix. However, for the cumulative effects assessment and discussion, it is assumed that the resources, qualities, values, and associated settings are similar to portions of the trails that were inventoried and assessed in this appendix. Cumulative effects are interdisciplinary, multijurisdictional, and usually do not conform to political boundaries. The geographical extent for the National Scenic and Historic Trails cumulative effects analysis for the proposed Project was a 1-mile buffer on each side of the centerline, as well as the entire length of the continuous trail within the Field Offices traversed by the Project. For NHTs, the analysis area was limited to the high-potential route segments, high-potential historic sites, and auto tour routes identified in the areas traversed by the Project, in consideration of other reasonably foreseeable projects along the National Trail. Past, present, and reasonably foreseeable future actions that were considered for this analysis are described in section 4.21 of this EIS. The following is a summary of cumulative effects on National Scenic and Historic Trails for the Project during construction and operation (refer to table F-3 at the end of this section).

Scenic and Recreation Resources

Cumulative effects to scenic and recreation resources relate to the modification of landscape scenery and the viewsheds associated with public viewing areas. Cumulative effects to scenic resources could result from: 1) the incremental modification of landscape character (i.e., settings) in natural areas, and 2) altering the viewsheds associated with trail-related public viewing locations based on the construction and operation of the Project in context with past, present, and reasonably foreseeable future actions. Cumulative impacts to recreation resources may occur as a result of the construction and operation of the Project, from reasonably foreseeable future projects that could include the development of new and temporary access roads and staging yards, as well as the operation of industrial-scale renewable projects, both wind and solar, as described in the cumulative effects (section 4.21) of this EIS. These cumulative effects to recreation resources, values, and qualities can be both experiential (i.e., primitive nature of trail is altered by the indirect introduction of off-highway vehicle use) and physical (i.e., the actual ROW of a trail [or associated linkages] is modified in a manner that the intended land use is changed). The Hidalgo substation construction activities would have a cumulative effect to the recreation setting of the CDNST during construction activity. The pre-existing Hidalgo substation currently limits the recreation setting to a modified landscape, but future construction of additional transmission ROWs (e.g., SunZia) and substation tie-ins may degrade the recreation setting further with the addition of access roads or transmission line towers and spans. The Hidalgo substation is located upon private land. The CDNST passes by the Hidalgo substation on private lands 0.3 mile south of the substation, in a disturbed setting. BLM lands that include a management corridor for the CDNST are located approximately 0.7 mile to the east of the substation. Cumulative effects for scenic and recreation resources in context with National Trails would occur over the life of the Project.

CUMULATIVE EFFECTS ANALYSIS FOR THE PROPOSED SOUTHLINE PROJECT

Generally, construction activities associated with the Project would include: upgrading or construction of access roads, clearing and grading activities for the ROW, excavating and installation of foundations, assembling structures with temporary and permanent pad sites, stringing conductors and shield wires, and clean-up and reclamation of affected areas. Some activities associated with construction, such as access roads, pad sites, and staging areas (as identified in the POD) would be temporary. Areas disturbed by temporary construction activities (i.e., access roads, staging areas, temporary pad, or pulling and tensioning sites) would not be required for routine maintenance activities during operation. These temporary areas will be identified in the POD and restored at the end of construction. Project-related access identified for closure near National Trails would be restored at the end of construction. Temporary

construction activities would result in cumulative effects that would contribute incrementally from the reasonably foreseeable actions. Operation activities associated with the Project would be ongoing and long-term, and would occur along the ROW for the life of the Project. The proposed transmission line structures, substations, and associated long-term access would be permanent and require routine maintenance, including vegetation maintenance in areas where forests occur. Operation of the reasonably foreseeable actions would permanently alter the scenic resources and change the viewsheds associated with recreation resources for the life of the Project. Although the transmission line would cross the Arizona Trail and Continental Divide Trail on existing utility corridors, the difference in scale of the structures will be noticeable, and the length of time trail users are under transmission lines and exposed to transmission line noise and foreground visual impacts will be longer. Additional reasonably foreseeable future actions may further the degradation of the CDNST trail corridor setting near the Hidalgo substation. Therefore all possible mitigation measures should be implemented to minimize experiential and visual impacts such as using towers that oxidize to a natural patina, and spacing towers for maximum possible distance from trail and/or matching structure spans. Construction of additional roads crossing NSTs and disturbance of the trail tread should be avoided. NSTs are intended to be in non-motorized settings where feasible and mitigation should include measures to prevent motor vehicles of any kind from accessing NSTs during or after construction, and prevent public use of Project created routes within 0.25 mile of NSTs after Project completion.

Reasonably foreseeable actions that would likely have direct cumulative effects to visual resources during construction of the proposed Project include residential development, agricultural development, airport and military infrastructure development, and transportation corridor development. Construction would require grading and/or removal of vegetation, which would introduce landscape contrast into the analysis area. These developments, when added to direct effects of the proposed Project, would incrementally convert the natural landscape into a developed or urban landscape that would adversely affect the scenery over time. Specific Projects that would alter landscape scenery for the National Trails include residential development (Vail, Arizona in the Arizona Trail vicinity). Other types of reasonably foreseeable actions within the analysis area that are more industrial include mining and mineral development, utility development such as high-voltage transmission lines, power generation stations, and substations. These developments, when added to direct effects of the proposed Project, would incrementally convert natural landscapes into industrial landscapes, which over time would adversely affect scenic resources associated with National Trails in those locations.

In the context of the proposed Project, cumulative effects to scenic resources would occur based on the industrialization of natural-appearing landscapes and the modification of views from sensitive recreation resources. In addition, conservation, protection, and restoration of National Trail resources would be incrementally affected by reasonably foreseeable actions within the analysis area. The primary use or uses of NSTs could be adversely affected by unauthorized off-highway vehicle use if selective mitigation measures were not successful. The primary use or uses of NHTs along auto tour routes could be adversely affected by reasonably foreseeable actions if the route designation was changed in the Anza Trail CMP. Namely, if auto tour routes were changed in the Anza Trail CMP, some trail segments may become high potential segments, or may no longer be managed as a high potential segment.

Specific projects that would have the greatest effect on scenic resources include the SunZia Southwest Transmission Line Project (CDNST, Arizona Trail, Anza Trail, and Butterfield Trail). This Project would potentially be constructed in the same corridor as the proposed Project, and therefore would contribute to the modification of scenic resources associated with the analysis area. Although construction of these projects would not occur at the same time as the proposed Southline Project, the introduction of these reasonably foreseeable actions (linear projects) would increase dominance along the Project analysis area and would affect scenic resources and recreation viewers. If these projects are consolidated, then construction disturbance would be focused within a specific area, rather than multiple projects occurring

at intermittent locations. Cumulative effects would be greater where they are not consolidated because more trail-related resources, qualities, values, and associated settings may be affected by these actions. Where these projects may be consolidated, cumulative effects during construction could be further reduced if structure spans were matched (where feasible), potential ROW distance minimized, and restoration of temporary construction areas (i.e., access roads) occurred.

Reasonably foreseeable actions within the proposed Project's analysis area that could contribute to cumulative effects include the Avra Valley Solar Project (Anza Trail, Arizona Trail, Butterfield Trail), UA Tech Park Thermal Storage Demonstration Project (Arizona Trail, Butterfield Trail), and Fotowatio Solar Project (Anza Trail, Arizona Trail, Butterfield Trail). These projects would result in construction modifications that would adversely affect scenic resources associated with the trail, by introducing numerous vertical and geometric structures within a largely flat and horizontal landscape. In addition to effects on scenery, the introduction of the proposed Project in context with these other projects would have a cumulative effect on recreation viewers using the National Trail, including but not limited to the developed recreational trail, local travel routes, and recreation resources associated with the trail. The intensity of cumulative effects would vary based on distance from the trail viewers to the facility, presence of man-made features in the landscape, and proposed Project visibility.

National Trails provide a recreational and visual experience that is continuous across jurisdictions and beyond the boundaries of a given project area. The permanent and irreversible effects of the Project, combined with the effects of other projects occurring throughout the trail corridor could contribute to an overall degradation of the national trail experience. Among other proposed projects that would substantially impact visual quality are the proposed Rosemont Copper Mine Project, 12 miles south of the analysis area, and the proposed Tailings Storage Facility for Ray Mine in the Ripsey Wash area, 70 miles north of the analysis area. Other past, present, and reasonably foreseeable projects such as mines, transportation corridors, fiber-optic lines, rail, and other land-disturbing projects would result in adverse cumulative effects to both scenic and recreation resources. Cumulative effects could possibly be reduced by consolidating, to the extent practicable, like facilities and sharing access whenever possible.

CUMULATIVE EFFECTS ANALYSIS, INCLUDING ENERGY DEVELOPMENT SCENARIOS

Cumulative effects to scenic and recreation resources also considered the potential for renewable energy development in the vicinity of the proposed Project. Although the visual influence of the proposed Project would not necessarily encompass the entirety of the renewable energy development areas (i.e., direct effects), the typical scale of renewable energy projects requires a large area of effect, as compared to transmission line projects. Therefore, it is reasonable to assess the potential renewable energy development zones in context with the Project from a cumulative effects aspect. Following are cumulative effects for construction and operation based on potential wind and solar energy development.

Potential wind and solar development could occur in both New Mexico and Arizona in the vicinity of the proposed Project. These types of development typically require surface disturbance that result in strong visual contrast. Based on current solar technology, vegetation would be removed within the footprint of potential solar facilities, which adversely effects landscape scenery. Over time, each additional solar facility (and associated transmission line) would incrementally convert the character of affected landscapes from natural to industrial. In addition, cumulative effects to recreation viewers within the vicinity of the solar development areas would occur based on what type of solar technology would be implemented. Photovoltaic technology has a relatively low profile, such that viewer impacts are reduced. Concentrating Solar Trough, or "Power Tower," technologies have components that are typically high profile and increase potential impacts to viewers. Other anticipated cumulative effects resulting from potential solar facilities, per the *Draft Programmatic Environmental Impact Statement for Solar Energy*

Development in Six Southwestern States (BLM and Department of Energy [DOE] 2010), include: effects to night skies associated with illumination requirements for maintenance and nighttime operation; effects to sensitive viewsheds, based on the introduction of glint and glare, depending on the type of solar technology developed; and effects to landscape setting, based on the formal geometric shapes associated with industrial-scale facilities. Although the identified reasonably foreseeable actions are unlikely to physically impact the trail (i.e., resulting in the need to relocate the trail due to the Project footprint), experiential impacts to recreation viewers would occur due to large wind farms or solar facilities within proximity of the trail. Similar to reasonably foreseeable actions that are linear (i.e., transmission line, pipeline), the resources, qualities, values, and associated settings would have cumulative effects throughout the analysis area. Where feasible, consolidation of associated transmission lines for these actions would be recommended as a mitigation measure to reduce cumulative effects. Mitigation may also include trail education kiosks or, as identified by the Trail Administrator, off-site mitigation could be specified on a case-by-case basis. Mitigation measures for future actions that may physically impact the trail could include visual buffers along the trail, or locating these actions farther from the trail to physically preserve trail-related resources, although experiential impacts would still occur for recreation viewers.

Historic and Cultural Resources

Incremental impacts to cultural resources result from past, present, and reasonably foreseeable future projects. Ground disturbance associated with linear facilities, such as transportation corridors (i.e., I-10, NM 9, I-19), Union Pacific Railroad, and Santa Fe Railroad) has had major incremental cumulative effects because many transportation corridors follow older trails or corridors that were used historically. For example, portions of Anza Trail that parallel I-19, and the historical alignment of the Butterfield Trail that parallels a portion of I-10, may have been partially or wholly destroyed because of the development of transportation corridors. The proposed alternative routes would extend across segments of several historical trails of various levels of significance. Although the proposed Project would not physically impact the existing trails, a potential remains for visual impacts. Although the Project would have a small incremental effect on historic trails as a whole, the cumulative effect of linear projects either crossing or paralleling historic trails would result in incremental degradation to the historic feeling and setting of these trails and to opportunities for future generations to experience landscapes as early travelers would have seen them.

Biological, Natural, and Other Resources

Construction of the proposed Project would have low and minor effects to natural resources, in common with other current and future developments in the region. Cumulative effects to natural resources relates to ground disturbance and the resulting loss of biological, geological, and scientific resources. Similar to historic and cultural cumulative impacts, many biological and natural resource impacts have already occurred along the Anza Trail and Butterfield Trail from past transportation development projects. Cumulative effects for scenic natural resources related to the trail would occur over the life of the Project.

CUMULATIVE EFFECTS ANALYSIS FOR THE PROPOSED SOUTHLINE PROJECT

Ground disturbance and the resulting loss of biological, geological, and scientific resources is an effect common to all new development, and in most cases, results in additive cumulative effects to these resources. Related direct effects restricted to the vicinity of construction in the analysis area include associated noise and disturbance of local wildlife. The proposed Project would contribute to ongoing loss of natural habitat in the cumulative effects analysis area where ground disturbance is required, although this is mitigated where possible by siting the proposed Project near existing areas of disturbance. Any future development may contribute to habitat loss, although most reasonably foreseeable actions within

the analysis area are likely to be near previously disturbed areas. In general, most types of development avoid high-sensitivity habitats of high quality. Some indirect effects of construction can result in off-site effects that are greater than the additive effects of habitat loss within a construction area. Initially, invasion of noxious weeds and other non-native plants tends to concentrate around areas of recently disturbed ground, expanding outward into undisturbed habitat under favorable conditions. Each additional ground-disturbing activity provides a new potential foothold for invasive plants, and could allow effects to extend rapidly beyond the initial area of disturbance. Erosion, particularly where construction occurs in steep terrain or near surface water, may result in silt being carried downstream, potentially altering stream substrate and aquatic habitat. Although these effects may occur with current and future development in the cumulative effects analysis area for National Trails, standard and selective mitigation measures for the proposed Project would minimize any contribution to these cumulative effects to the extent feasible.

Effects of operation of the proposed Project include those related to the presence of access roads and associated maintenance activities, and the presence of transmission structures and lines in the environment. In general, locating multiple linear utilities in the same area minimizes cumulative effects on biological resources. Total ground disturbance is reduced because access roads may serve multiple projects, and other effects to biological resources such as maintenance activities, recreational or other use of access roads, and risk of invasive plant spread would affect a smaller portion of the landscape than if utilities were widely separated. However, utility corridors may create edge effects or act as dispersal barriers, and so co-locating utilities is not universally beneficial to all types of biological resources (i.e., vegetation, wildlife, etc.). However, the benefits of reducing total ground disturbance when multiple linear utilities are co-located may outweigh the negative effects of increased local intensity of disturbance in many cases (see section 4.21 for detailed cumulative effects to biological resources).

CUMULATIVE EFFECTS ANALYSIS, INCLUDING ENERGY DEVELOPMENT SCENARIOS

Development and operation of wind energy facilities have several types of impacts in common with construction and operation of the proposed Project. Ground disturbance, maintenance activities, generation-tie transmission lines, the risk of invasive plant colonization, and construction activities are impacts associated with wind energy that are similar to the development of major transmission lines. Wind turbines and major transmission lines create collision hazards for birds. However, the risk posed by transmission lines is relatively dispersed, except where a line would cross major migration corridors. Siting wind energy facilities away from major migration corridors reduces the collision risk to migratory birds, but may still affect resident birds. Impacts associated with solar development are much more intensive than those associated with wind energy or transmission lines. Solar fields are generally large and contiguous, from tens to hundreds of acres, and often require complete vegetation removal and elimination of all wildlife habitats within the Project footprint (BLM and DOE 2010).

Engineering constraints require placement of solar fields in large, level areas. Although sensitive montane and riparian habitats are not generally impacted by solar development, a number of species associated with level valley bottoms in the Sonoran Desert are threatened by ongoing urban and agricultural development of those areas. Solar energy development, when not located on previously disturbed land, contributes to the decline of these biological resources. The incremental impact of the Project with solar development would result in moderate impacts to habitats.

Table F-3. Summary of Direct, Indirect, and Cumulative Effects

	Past Actions	Present Actions	Proposed Project	Future Actions	Cumulative Effect
National Trails and trails under study	Prehistoric and historic migration and exploration. Ranching and mining roads.	Recreation activity anticipated to remain at current seasonal levels; there is a noticeable increase in recreational activities during the summer.	Minor, temporary decrease in trails setting and desired experiences during construction only. During operation and maintenance, trail activity would be anticipated to remain at current levels.	Moderate, long-term decrease in trail settings during construction as well as operation and maintenance.	Minor cumulative effect during construction and operation.

The National Trails Assessment Project-level impact assessment figures are provided below, beginning with figure F-3, Panel Index Map illustrating the intersections for Project-level National Trails System assessment. Map panels for visual and recreation resources are illustrated on figures F-4 through F-22; map panels for cultural, biological, and other natural resources are illustrated on figures F-22 through F-41; and map panels for the composite impact assessment results are illustrated on figures F-42 through F-60.

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Figure F-3. Panel Index Map illustrating the intersections for Project-level National Trail System assessment.

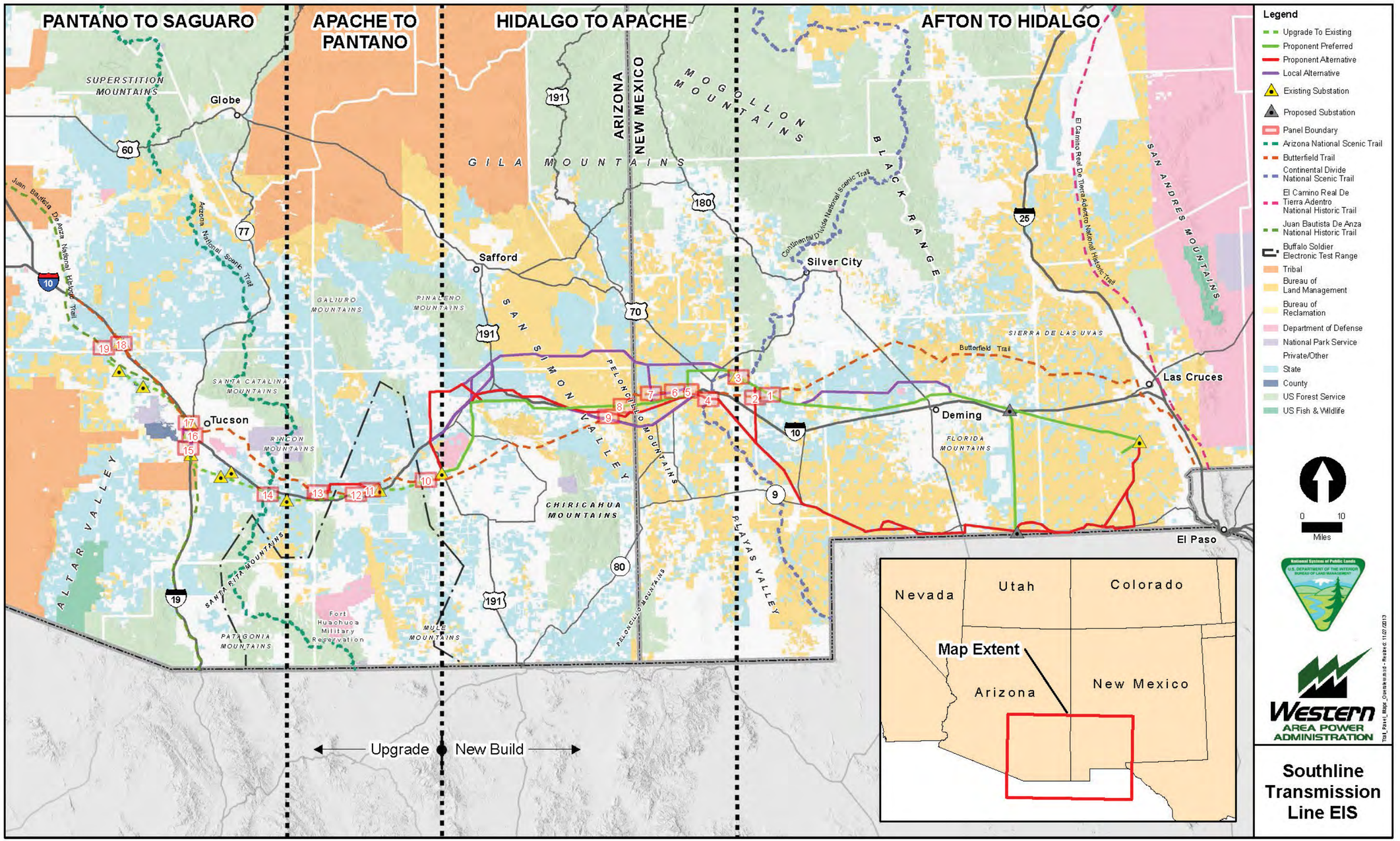


Figure F-4. Detailed trail inventory for visual and recreation resources (Panel 1).

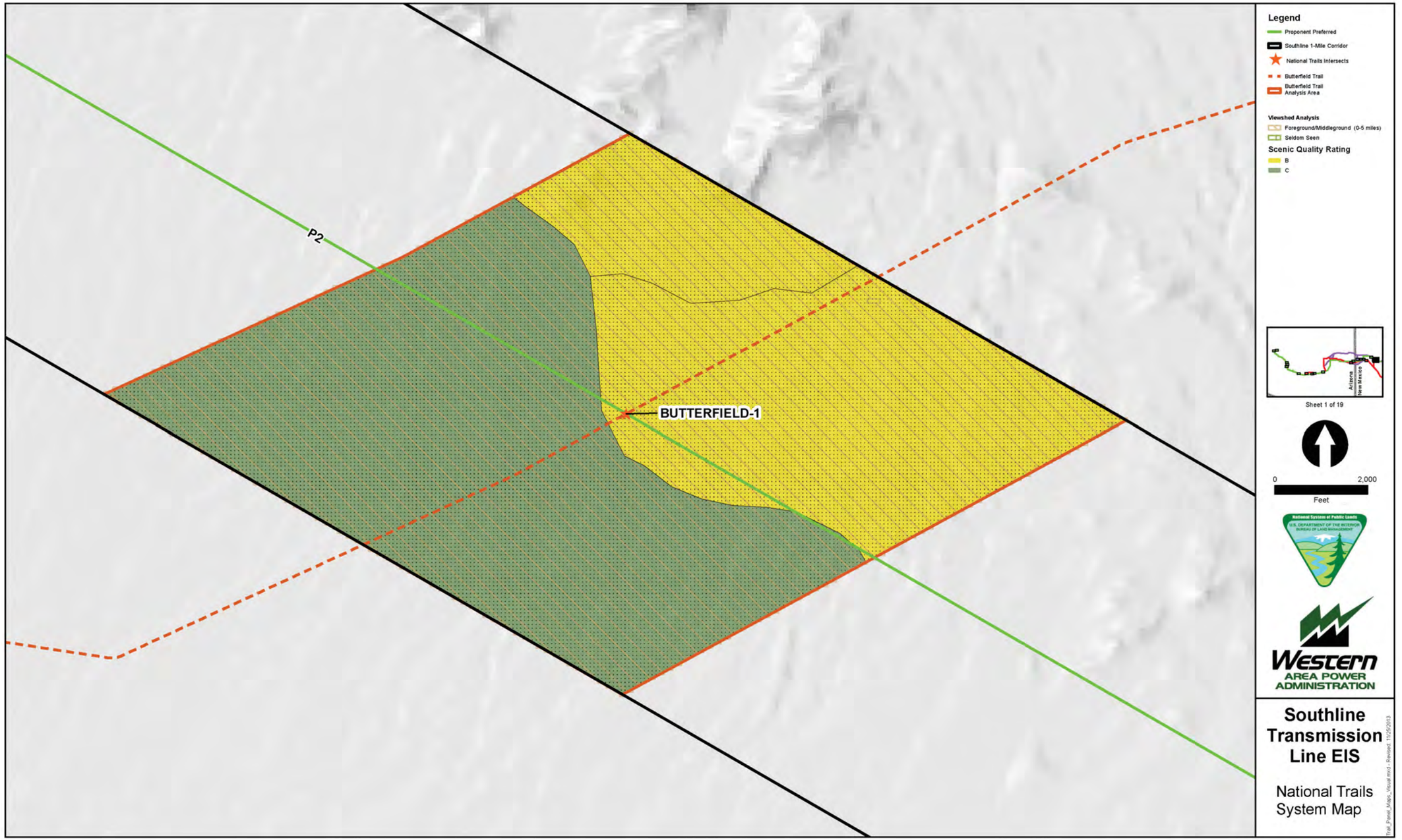


Figure F-5. Detailed trail inventory for visual and recreation resources (Panel 2).

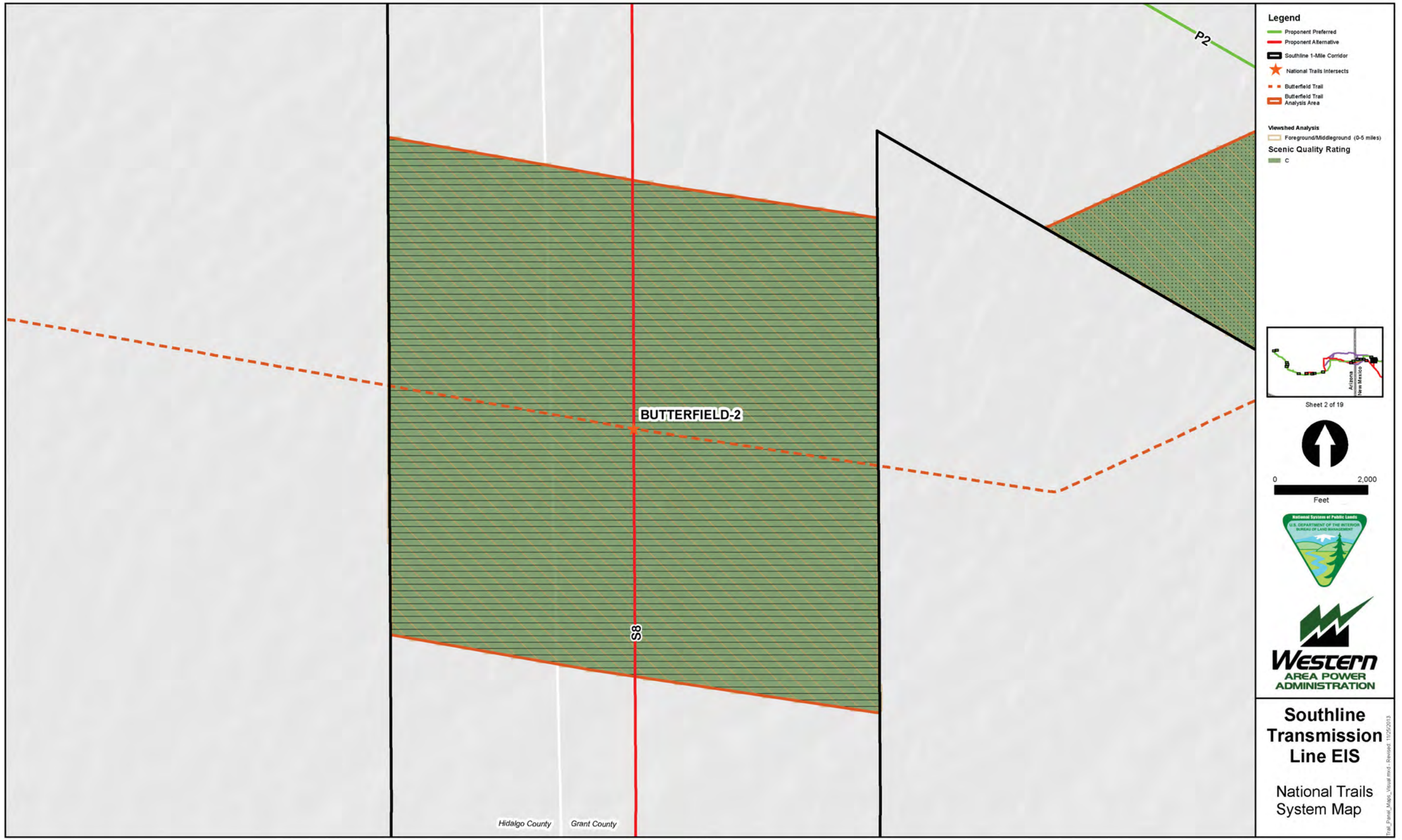


Figure F-6. Detailed trail inventory for visual and recreation resources (Panel 3).

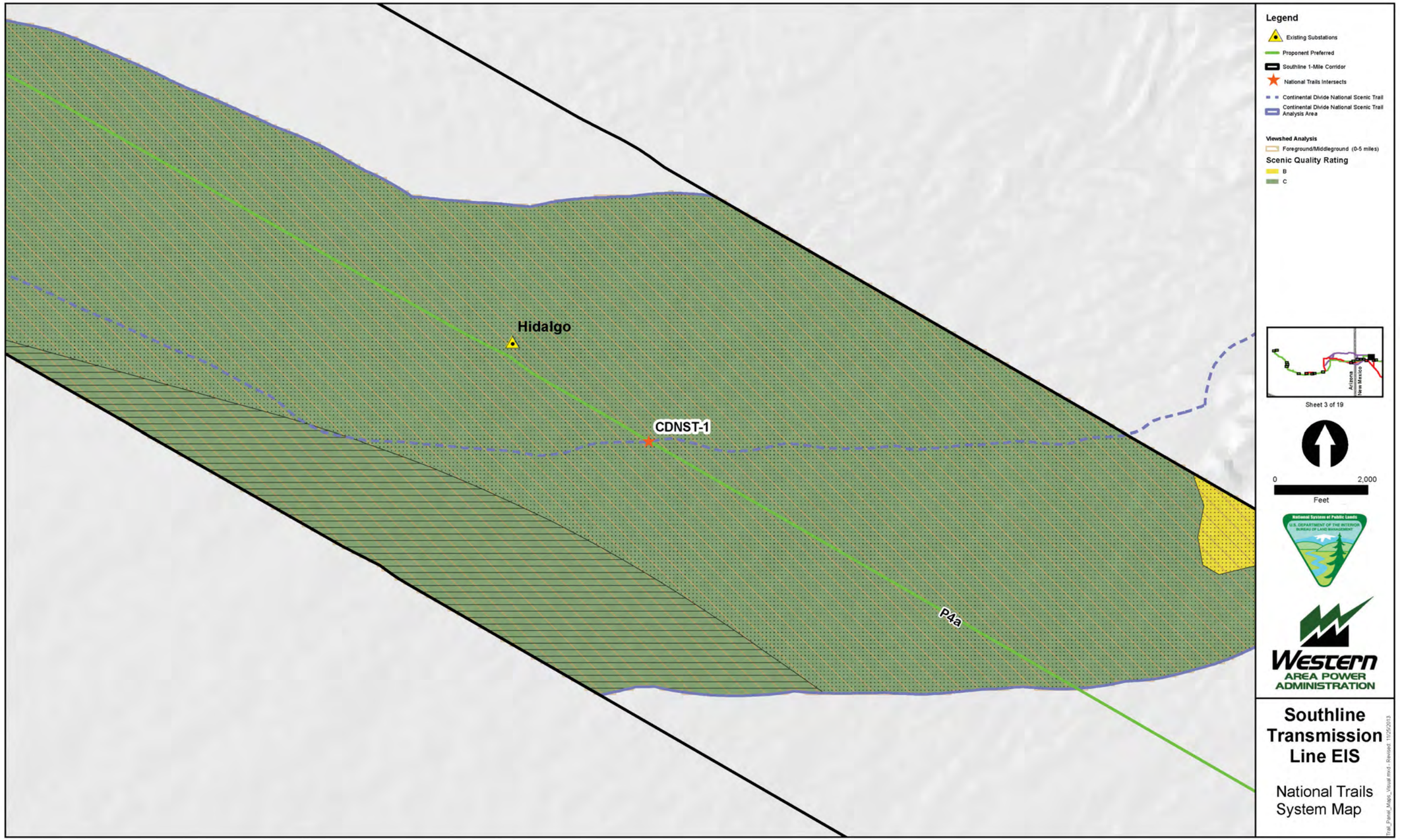


Figure F-7. Detailed trail inventory for visual and recreation resources (Panel 4).

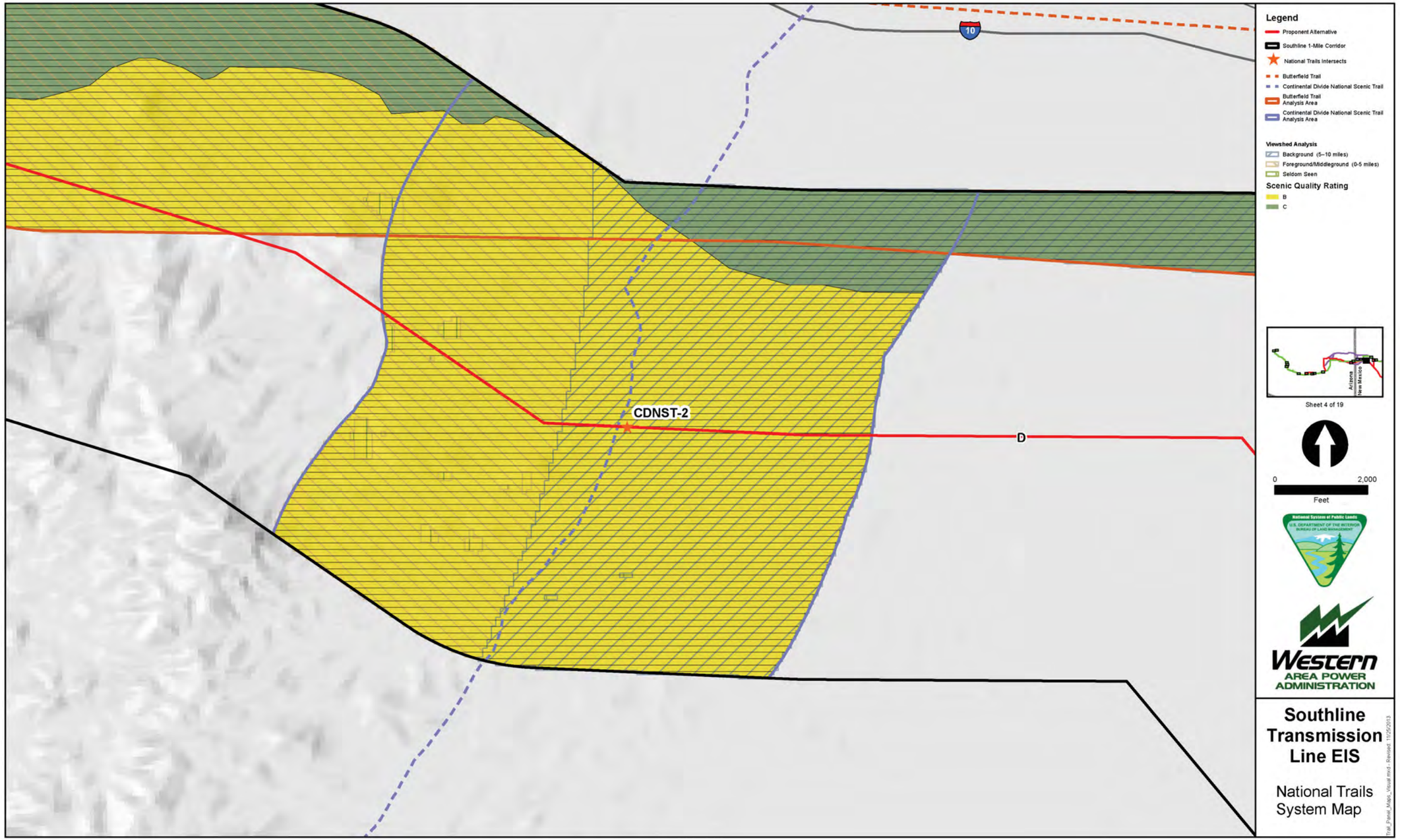


Figure F-8. Detailed trail inventory for visual and recreation resources (Panel 5).

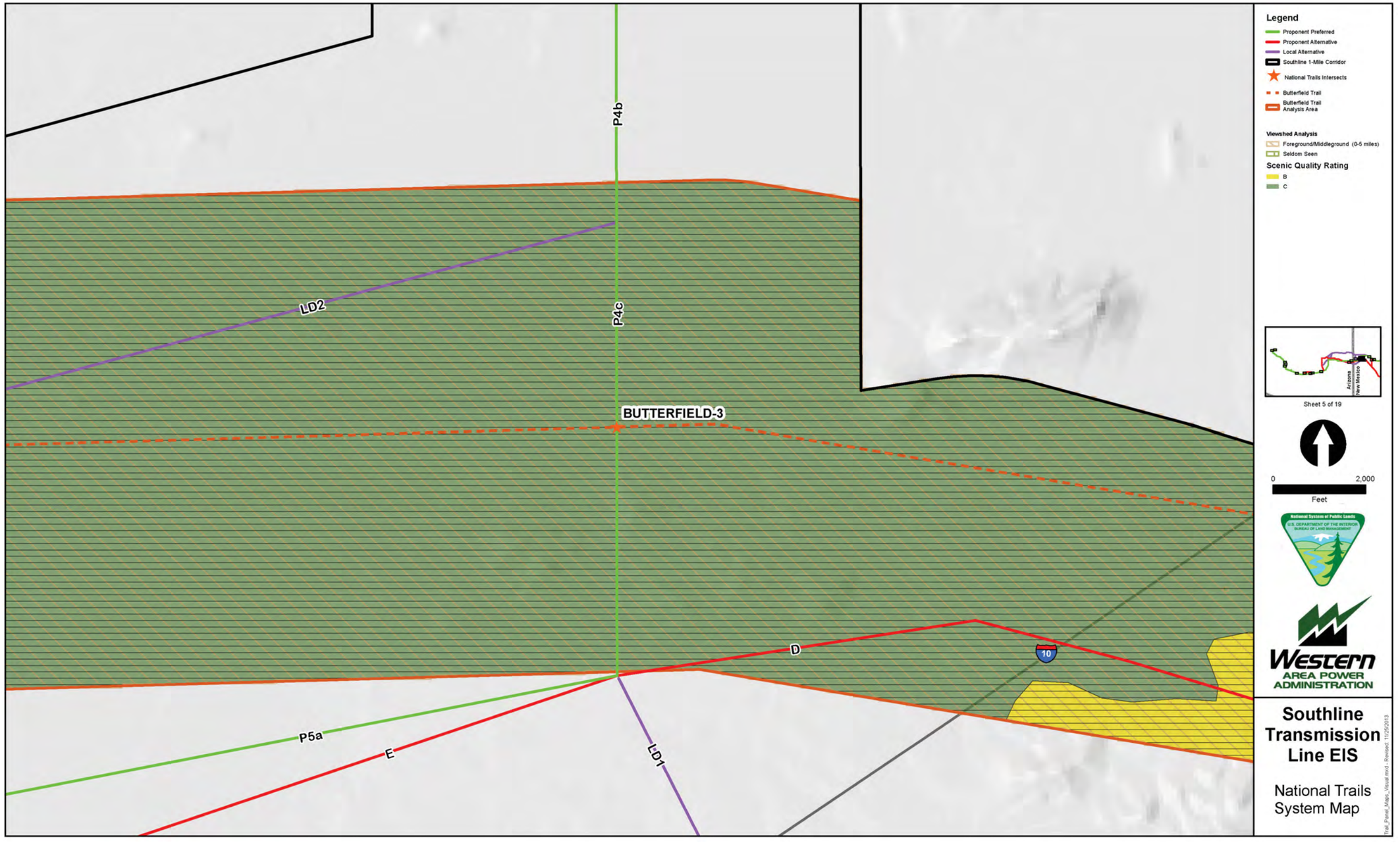


Figure F-9. Detailed trail inventory for visual and recreation resources (Panel 6).

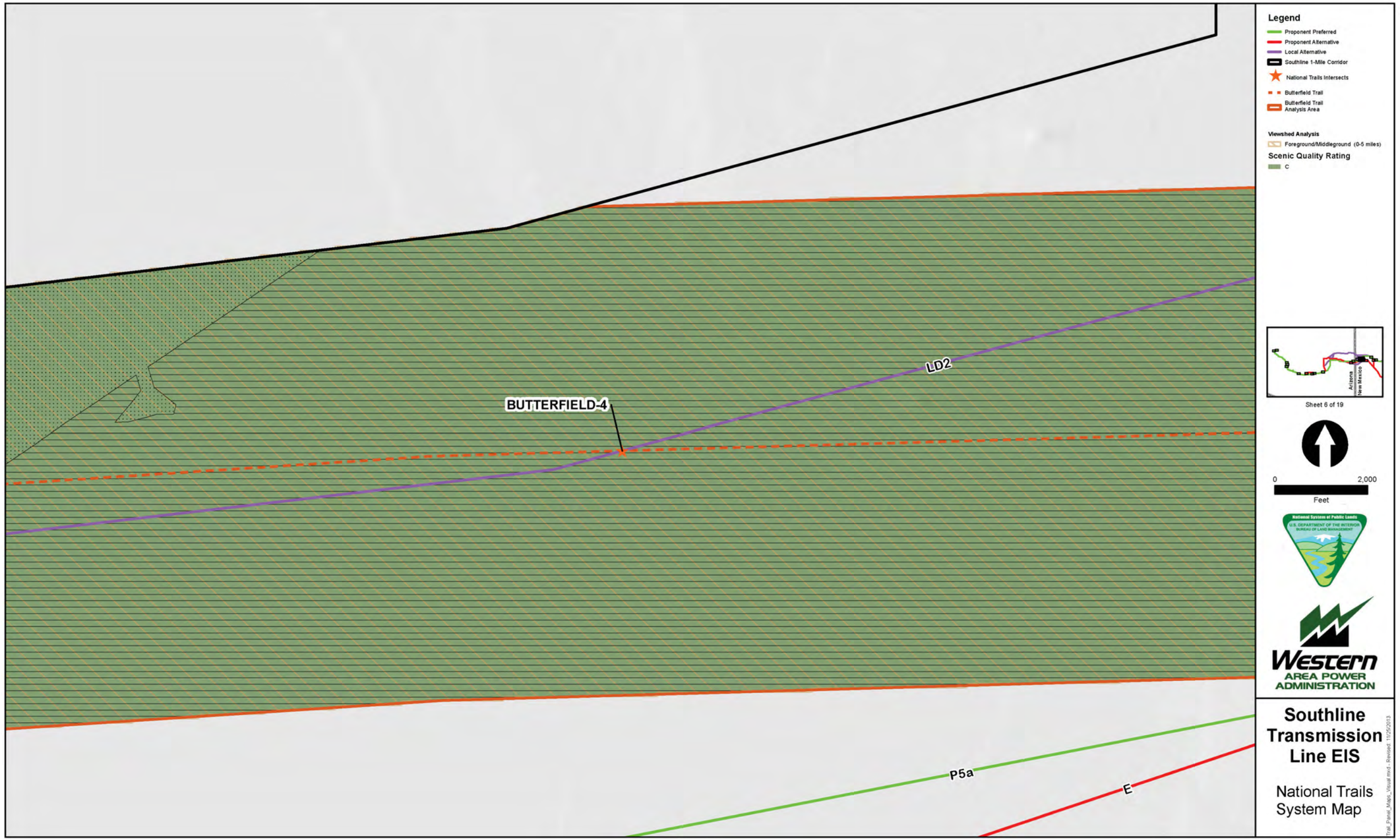


Figure F-10. Detailed trail inventory for visual and recreation resources (Panel 7.)

Figure F-11. Detailed trail inventory for visual and recreation resources (Panel 8).

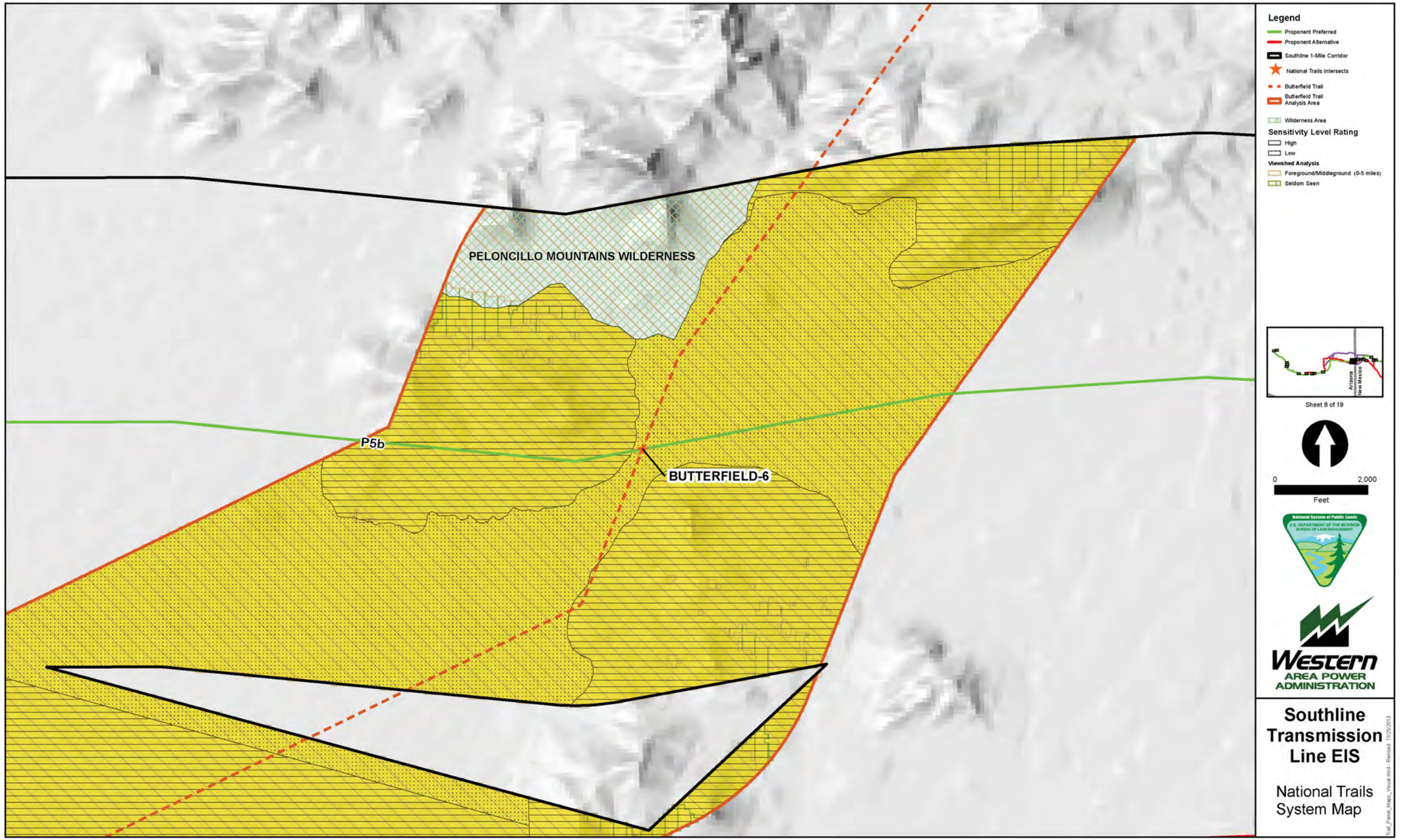


Figure F-12. Detailed trail inventory for visual and recreation resources (Panel 9).

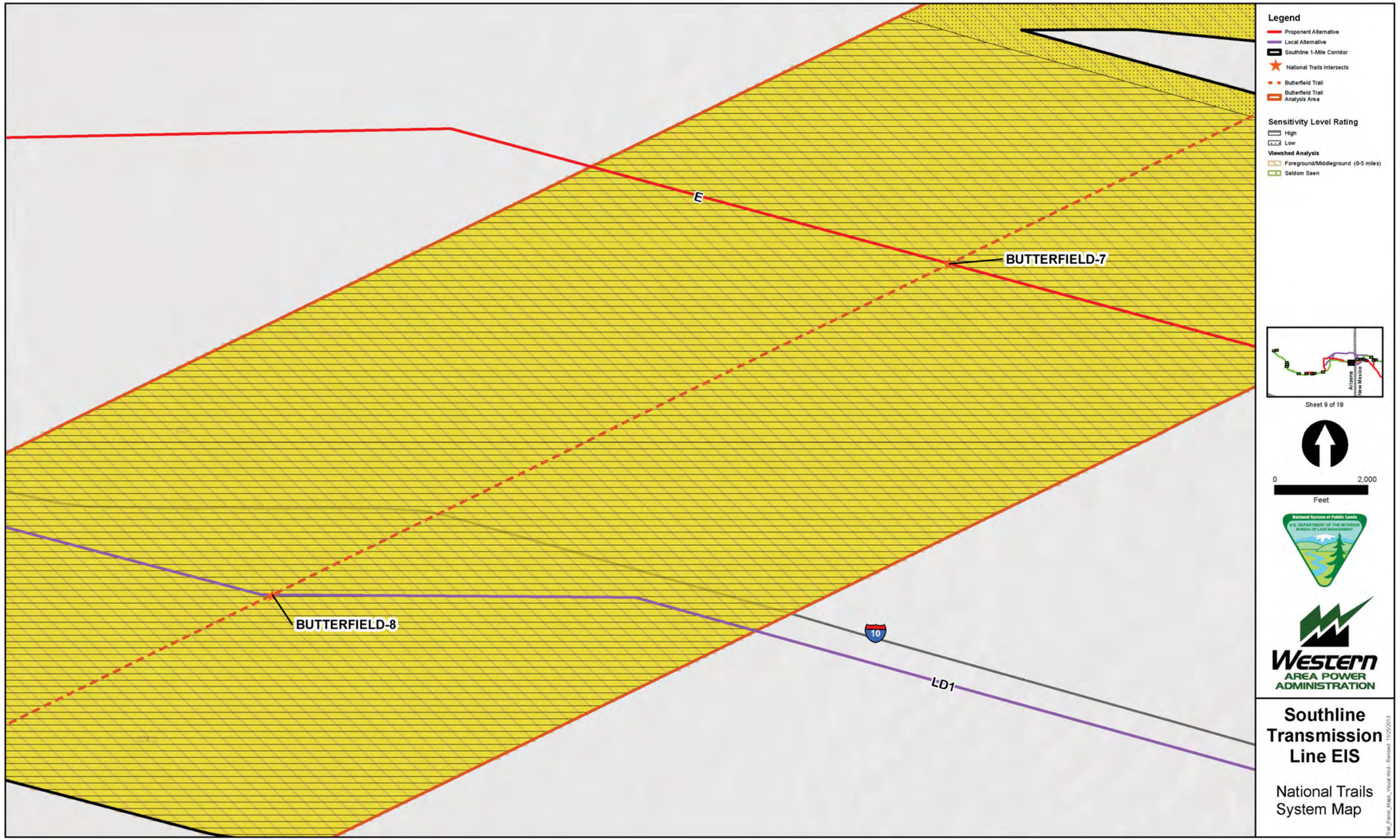


Figure F-13. Detailed trail inventory for visual and recreation resources (Panel 10.)

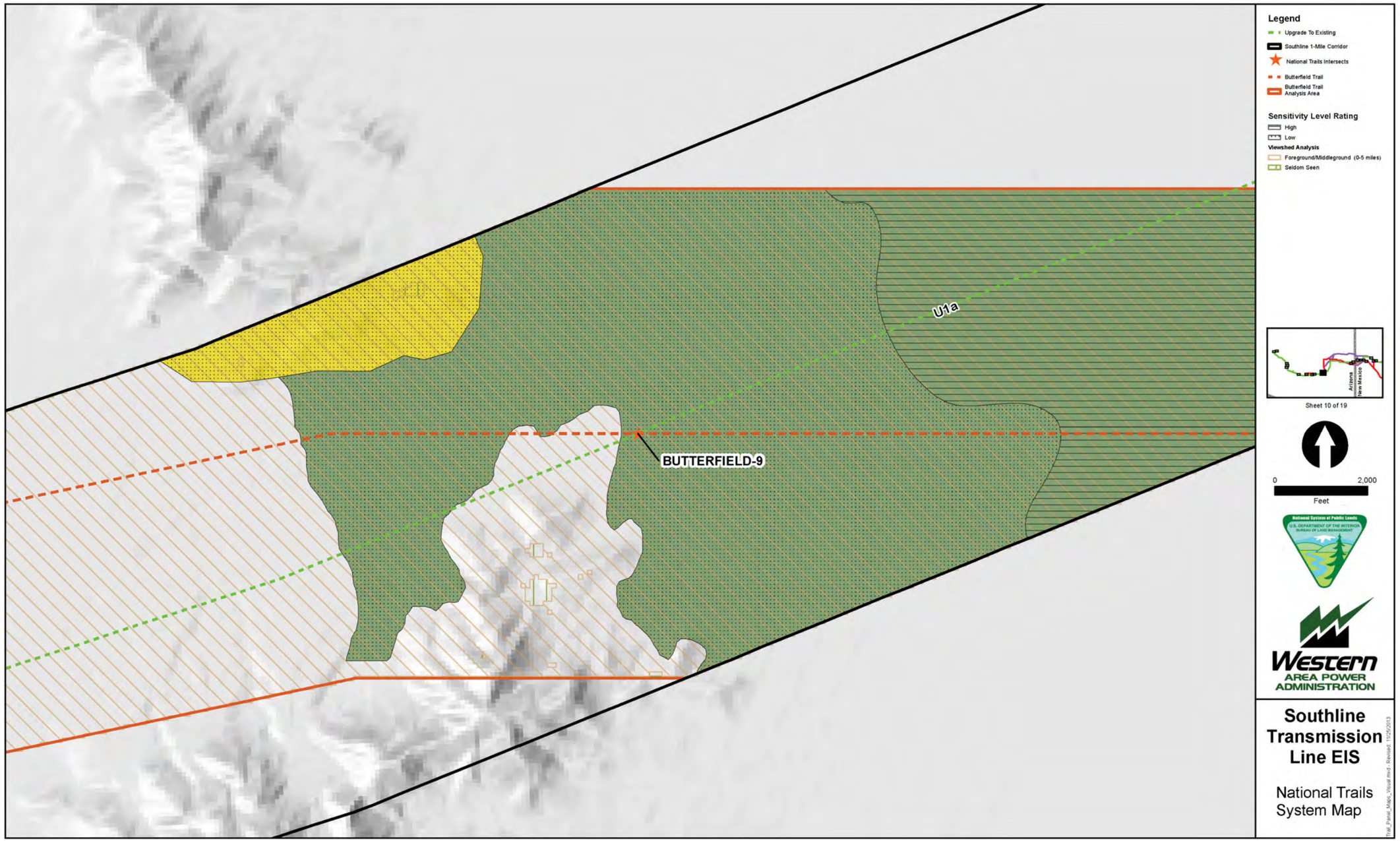


Figure F-14. Detailed trail inventory for visual and recreation resources (Panel 11).

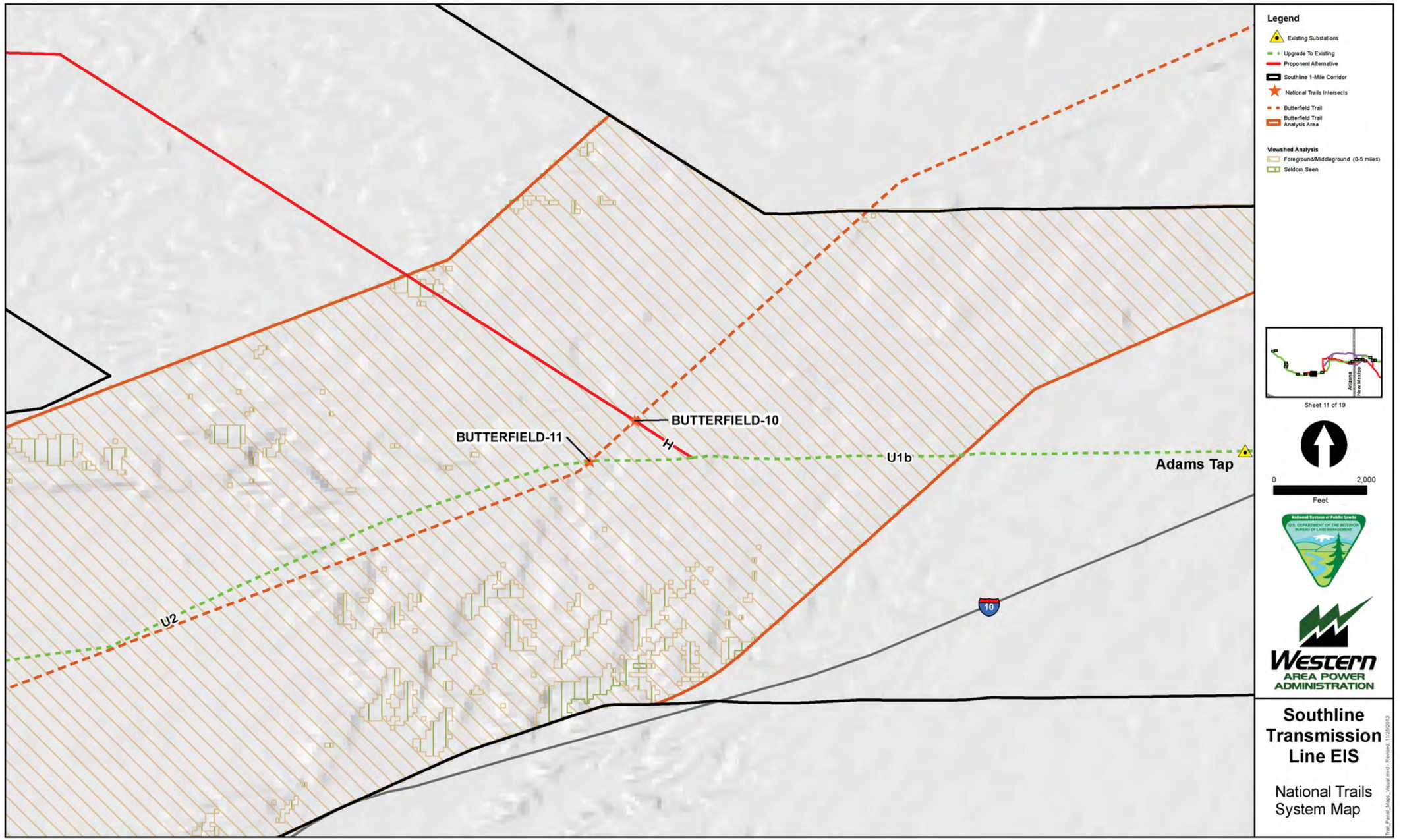


Figure F-15. Detailed trail inventory for visual and recreation resources (Panel 12).

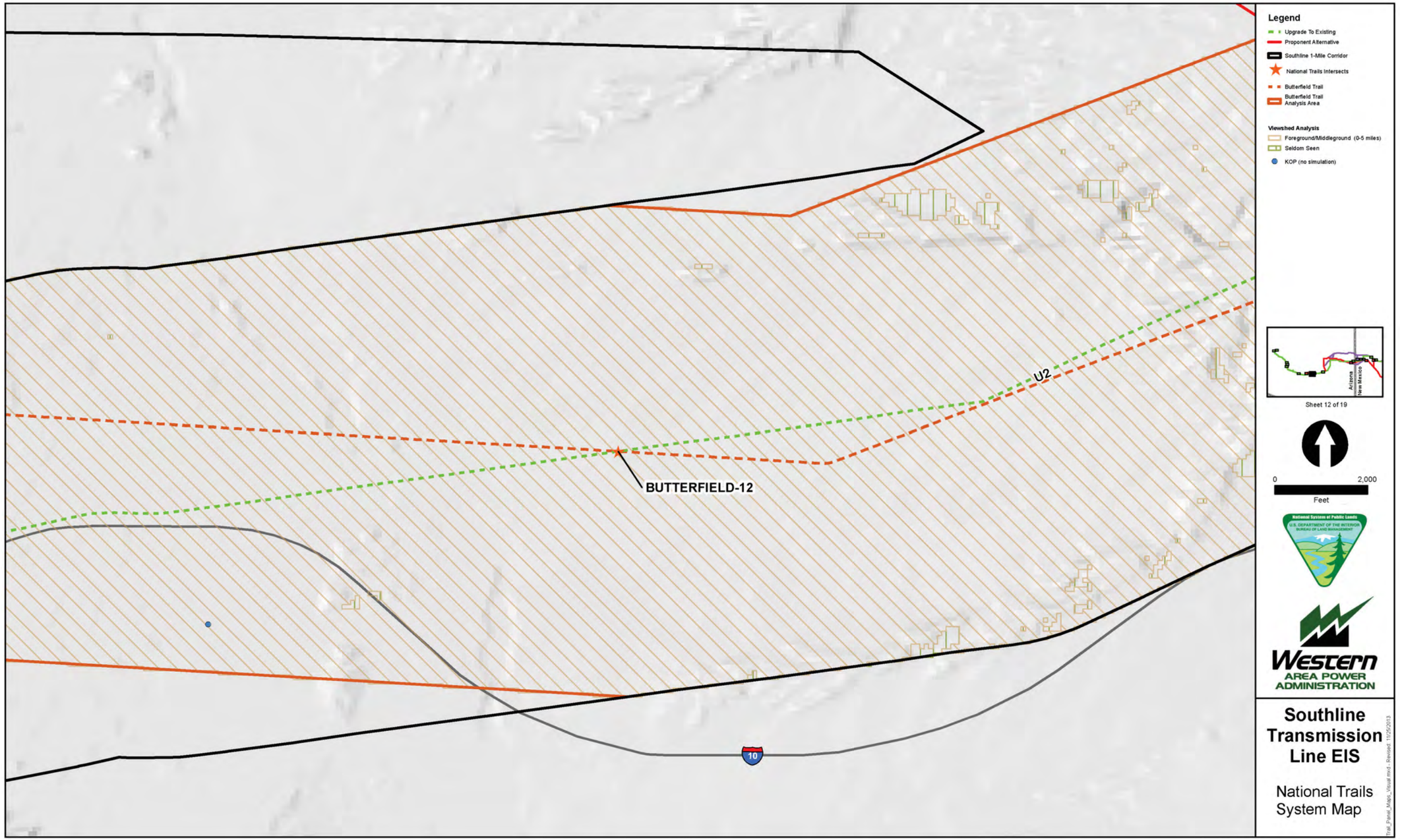


Figure F-16. Detailed trail inventory for visual and recreation resources (Panel 13).

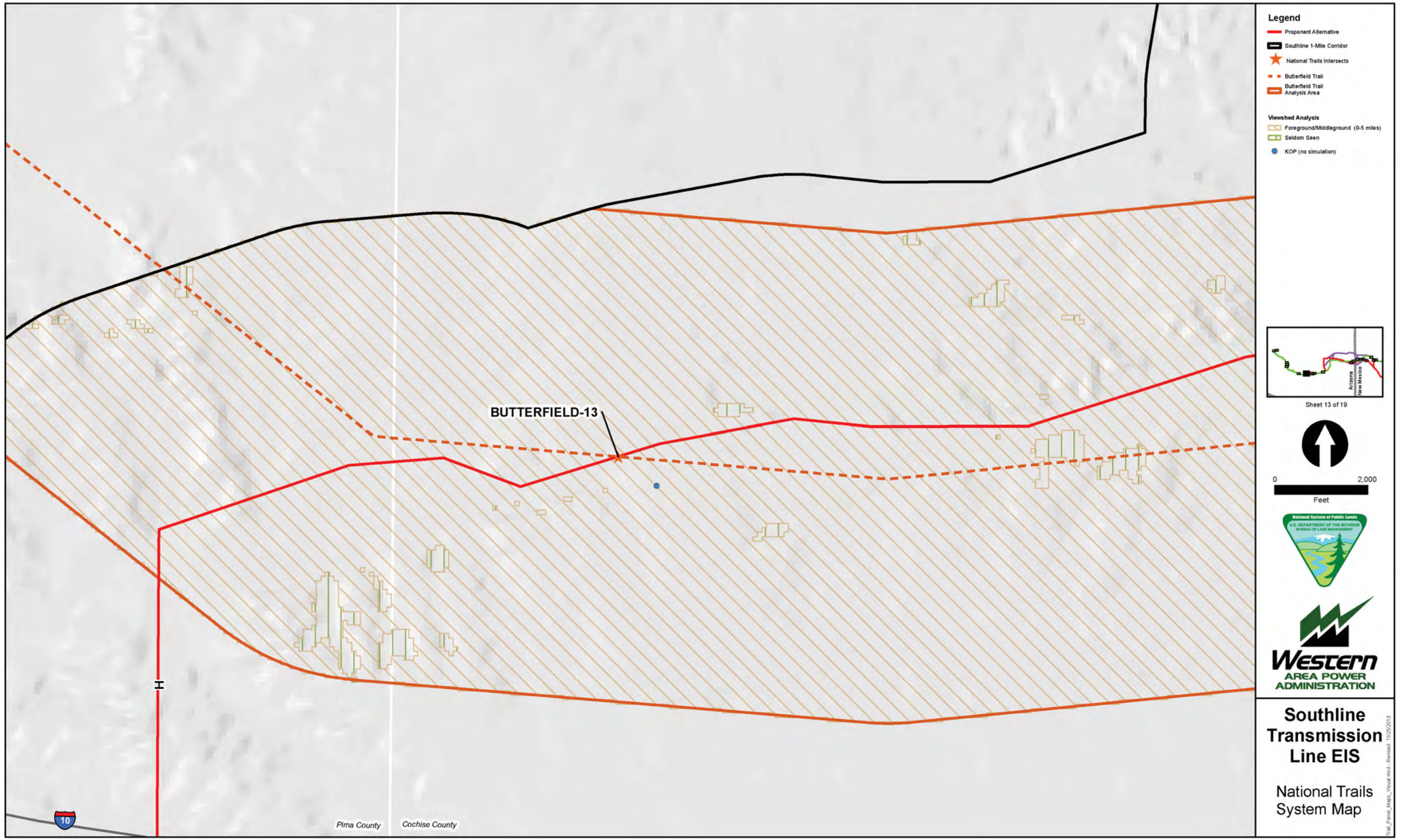


Figure F-17. Detailed trail inventory for visual and recreation resources (Panel 14).

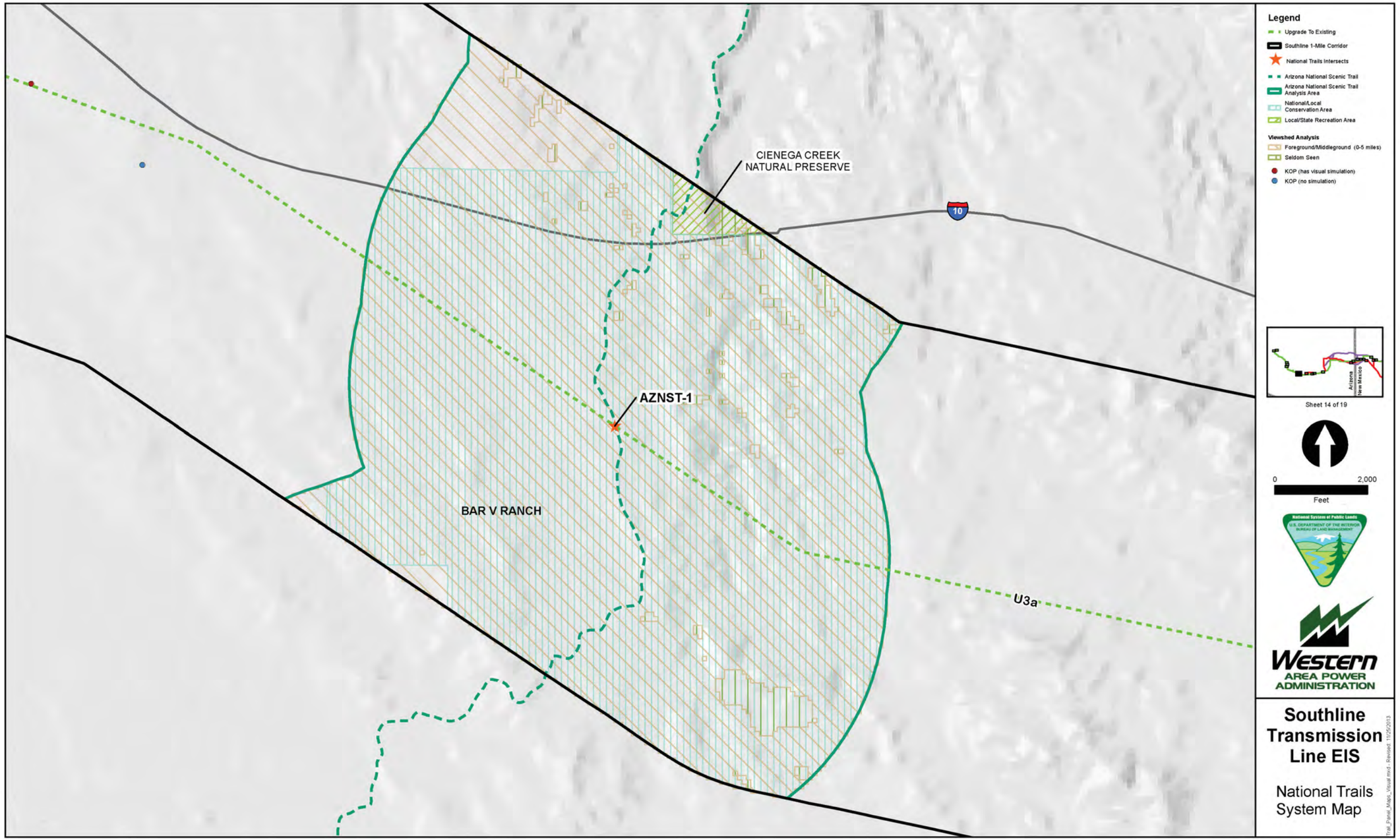


Figure F-18. Detailed trail inventory for visual and recreation resources (Panel 15).

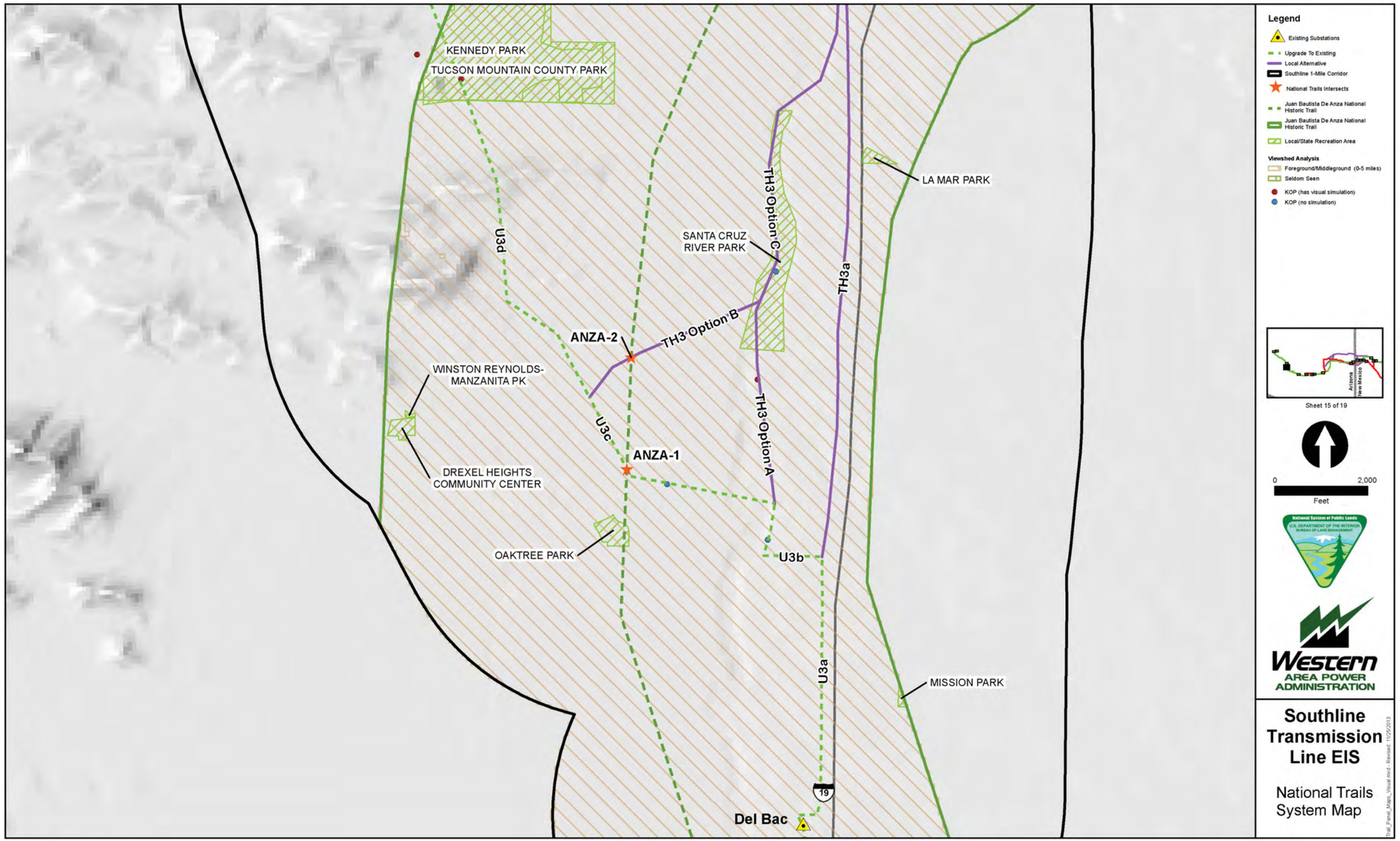


Figure F-19. Detailed trail inventory for visual and recreation resources (Panel 16).

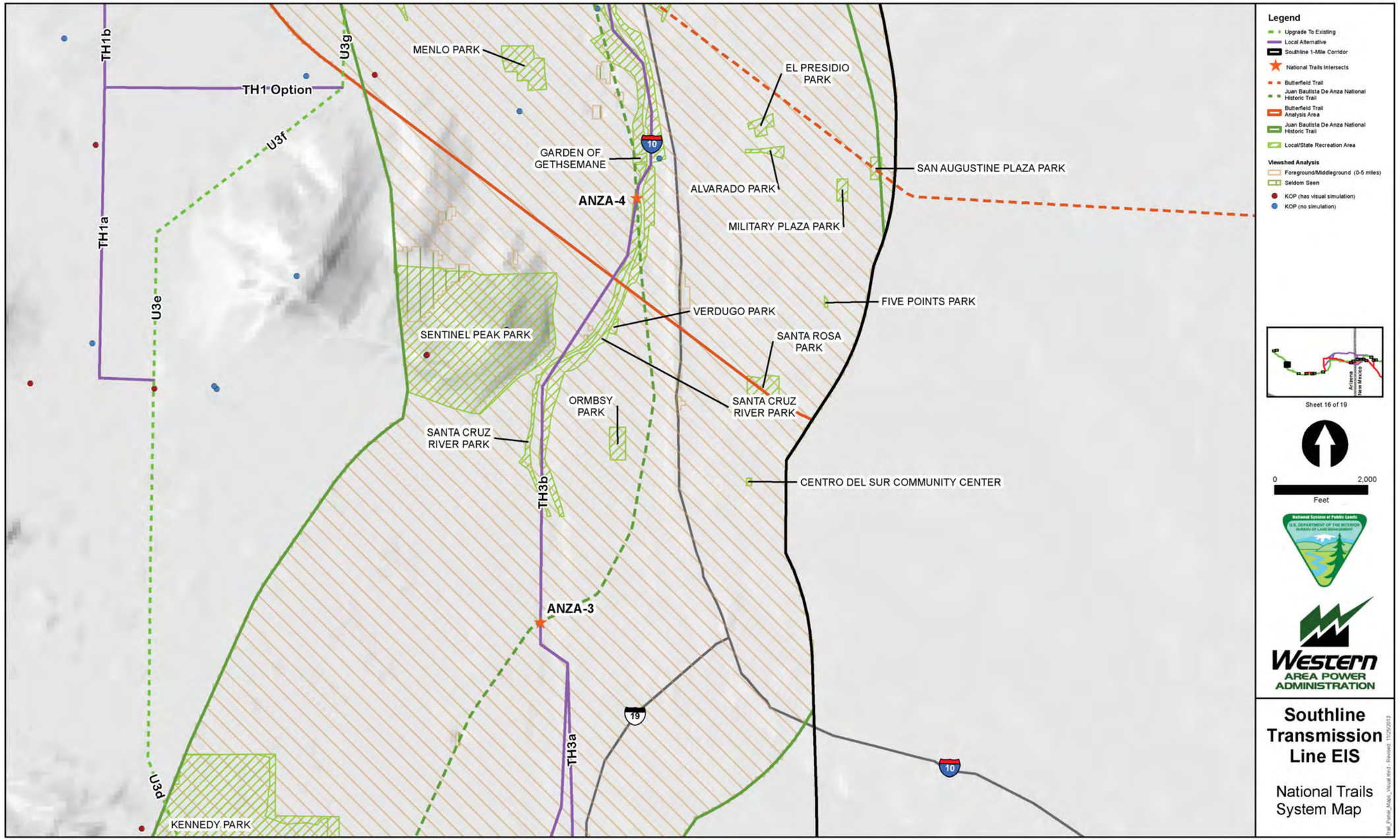


Figure F-20. Detailed trail inventory for visual and recreation resources (Panel 17).

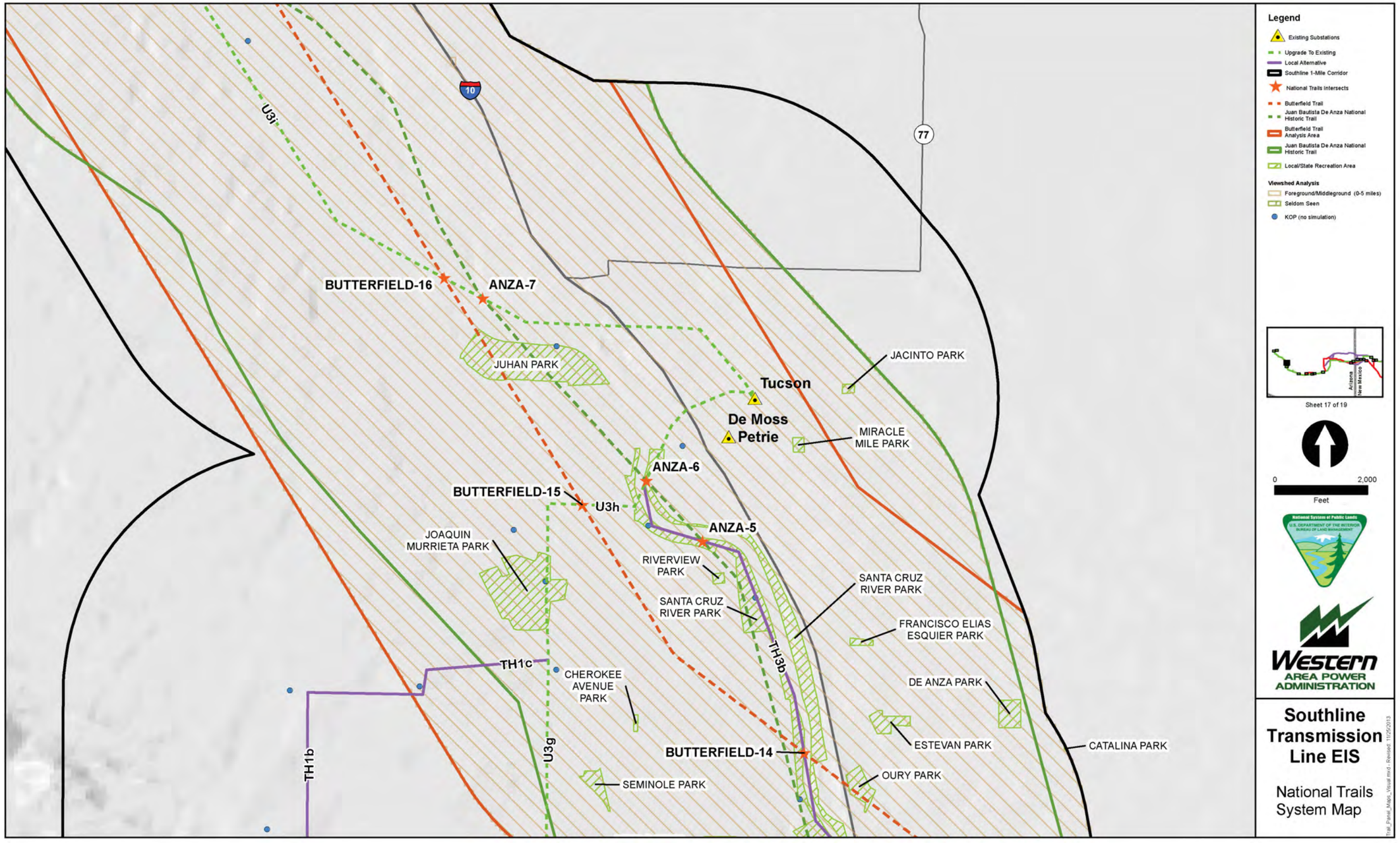


Figure F-21. Detailed trail inventory for visual and recreation resources (Panel 18).

Figure F-22. Detailed trail inventory for visual and recreation resources (Panel 19).

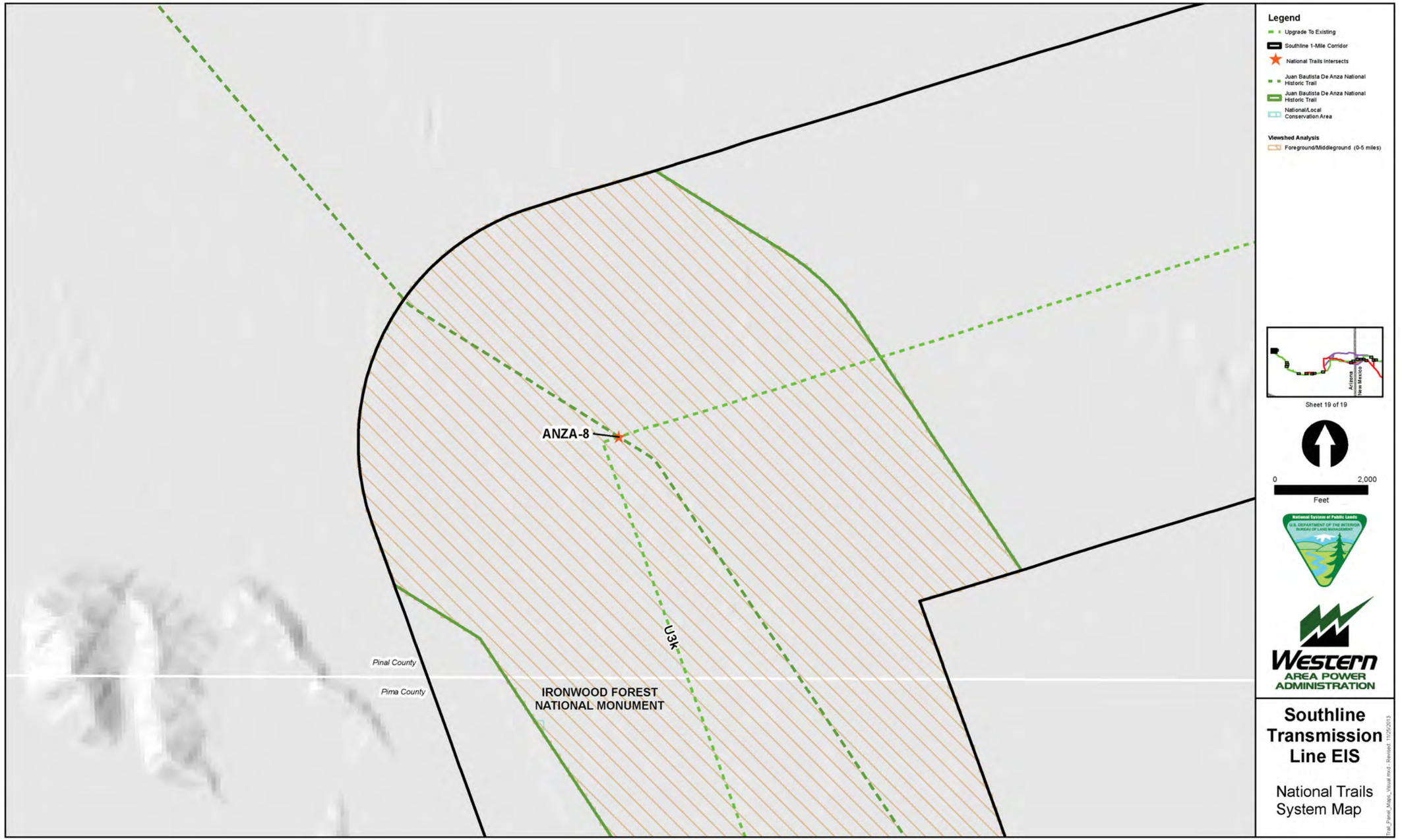


Figure F-23. Detailed trail inventory for cultural, biological, and other natural resources (Panel 1).

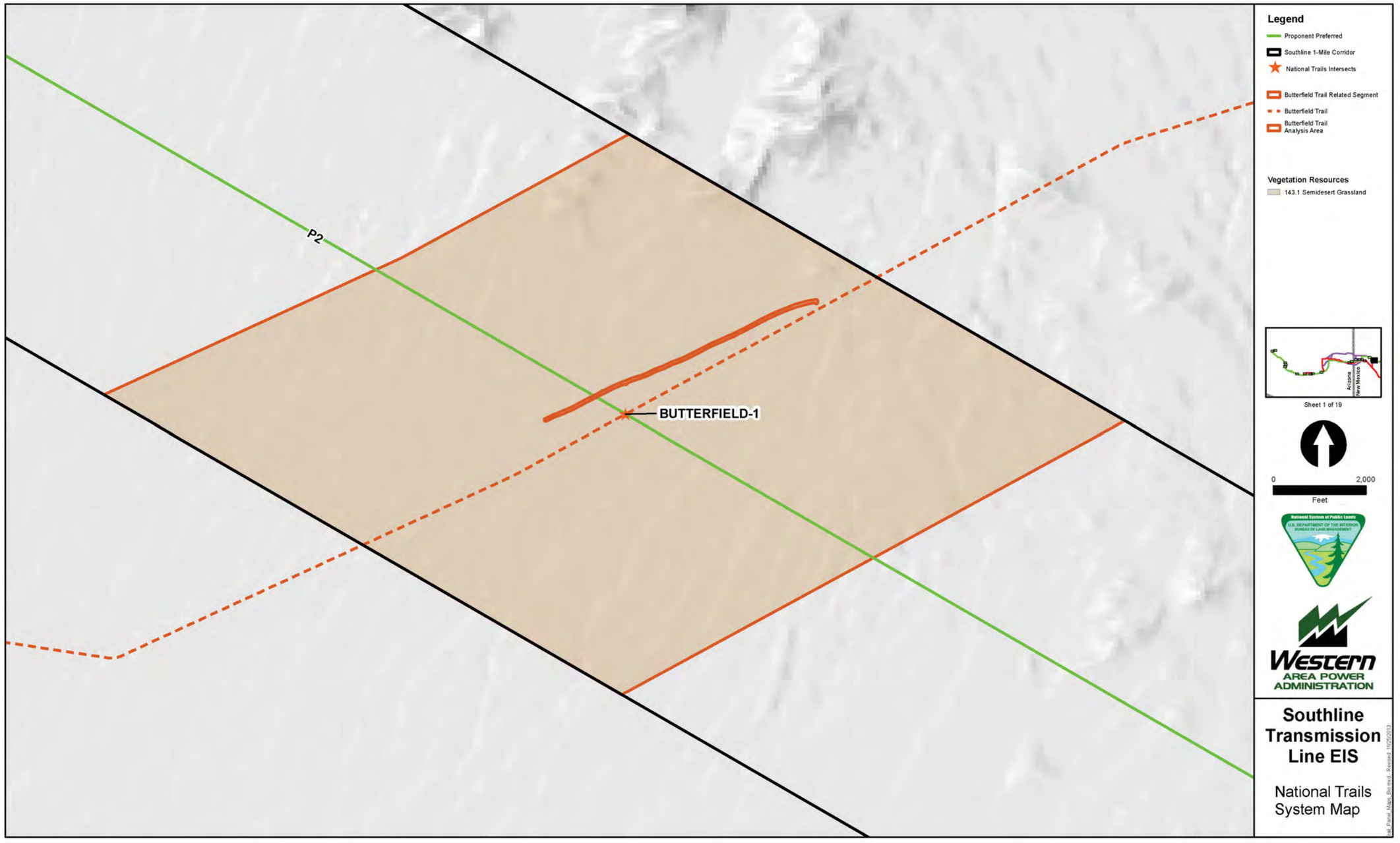


Figure F-24. Detailed trail inventory for cultural, biological, and other natural resources (Panel 2).

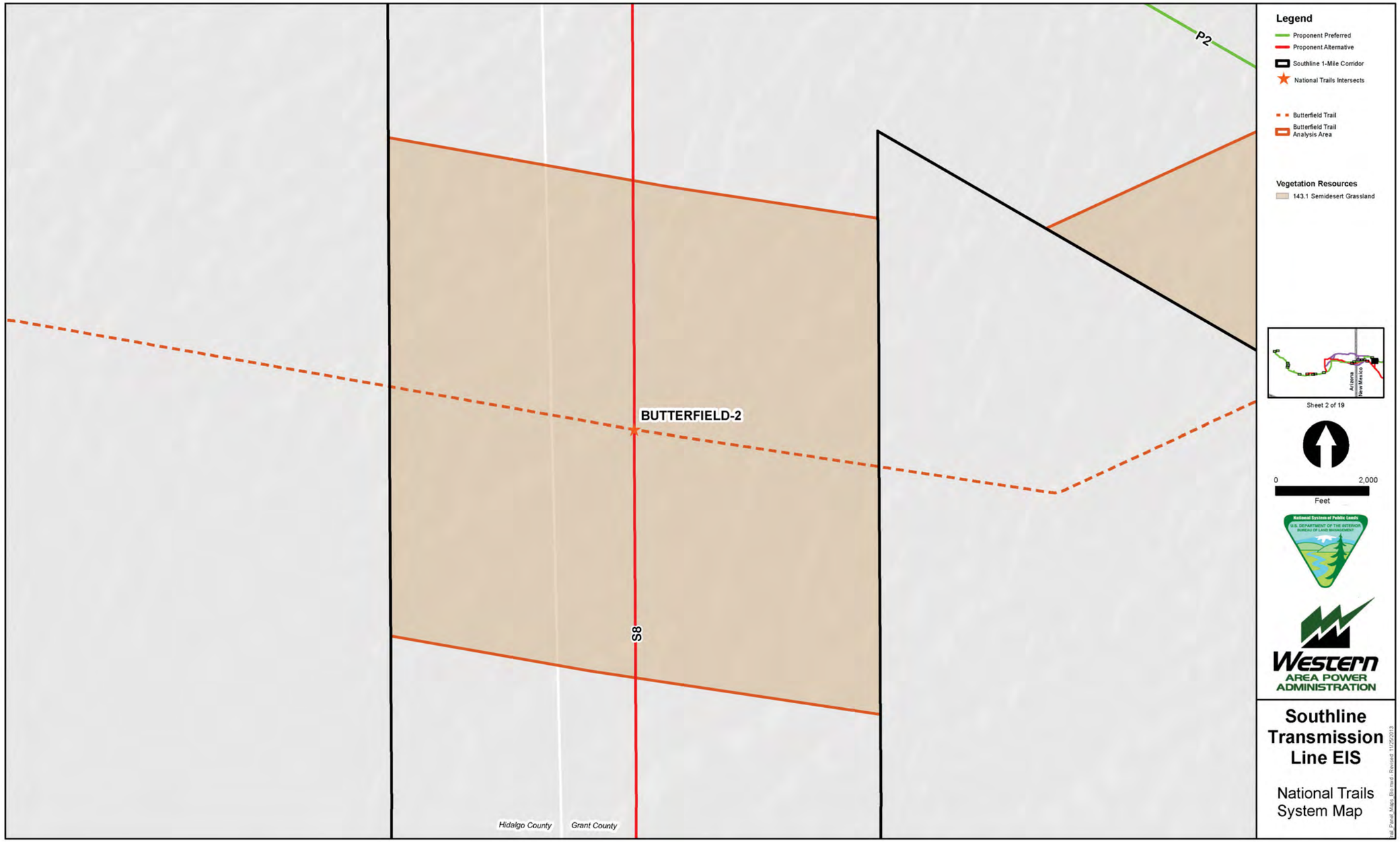


Figure F-25. Detailed trail inventory for cultural, biological, and other natural resources (Panel 3).

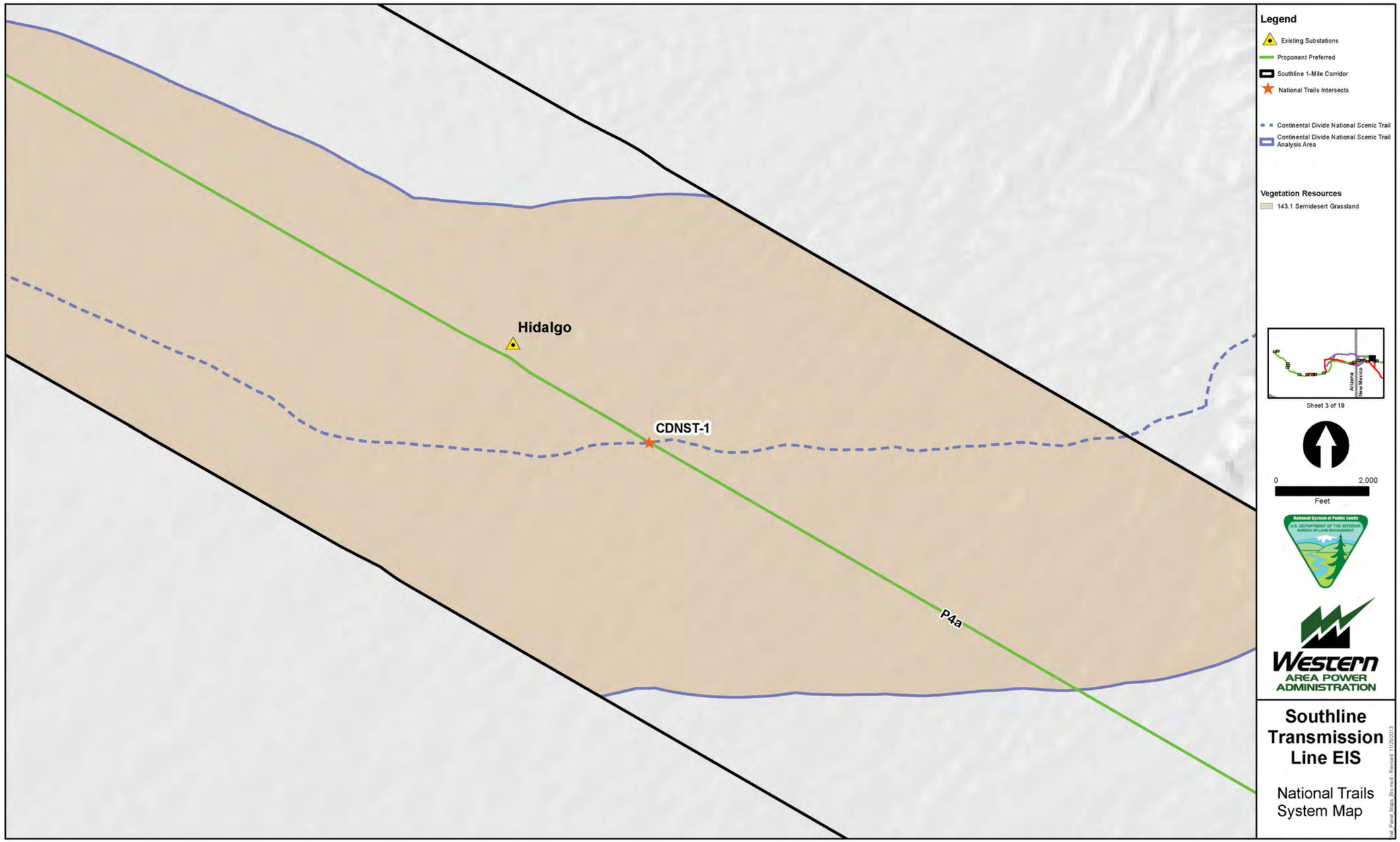


Figure F-26. Detailed trail inventory for cultural, biological, and other natural resources (Panel 4).

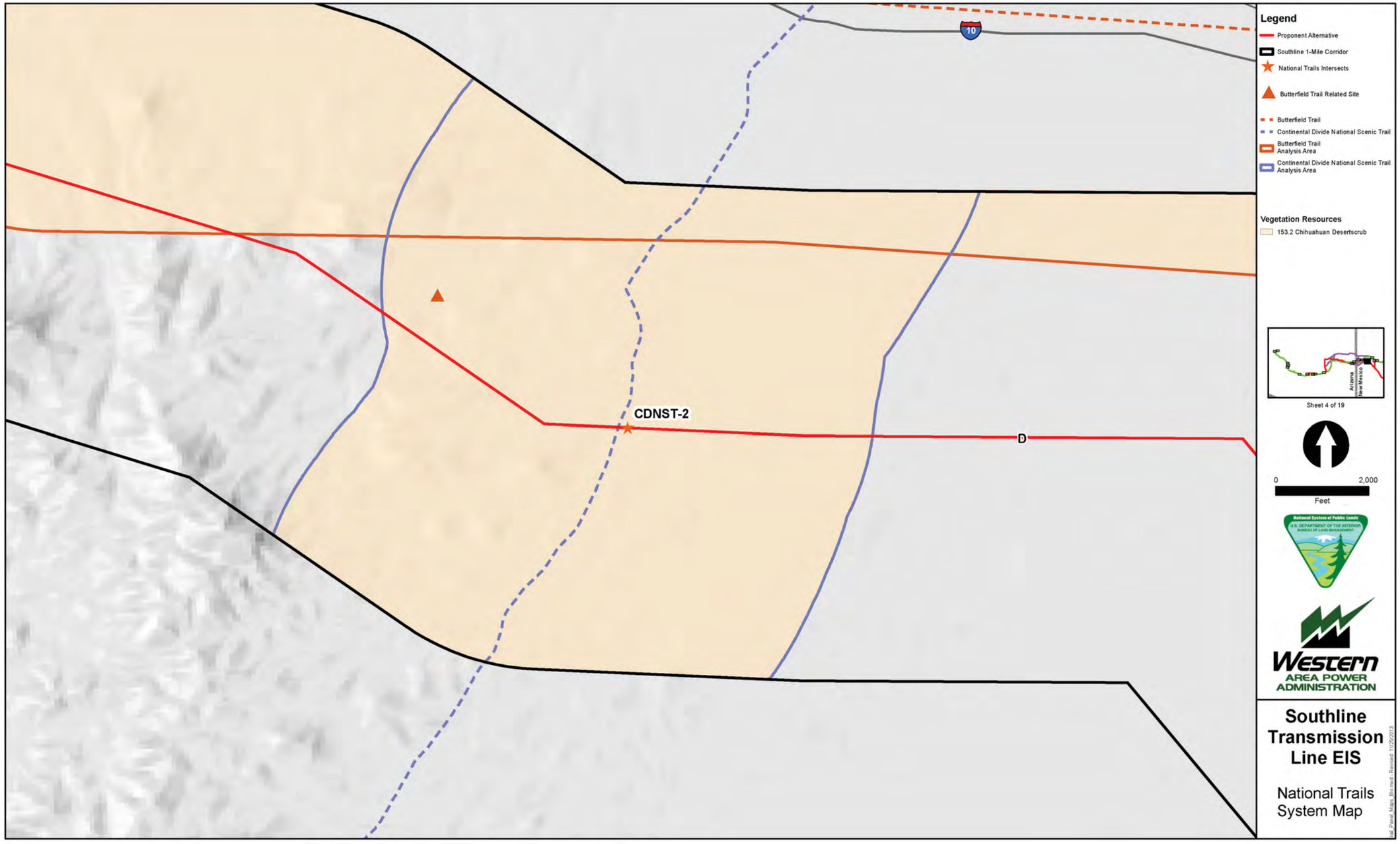


Figure F-27. Detailed trail inventory for cultural, biological, and other natural resources (Panel 5).

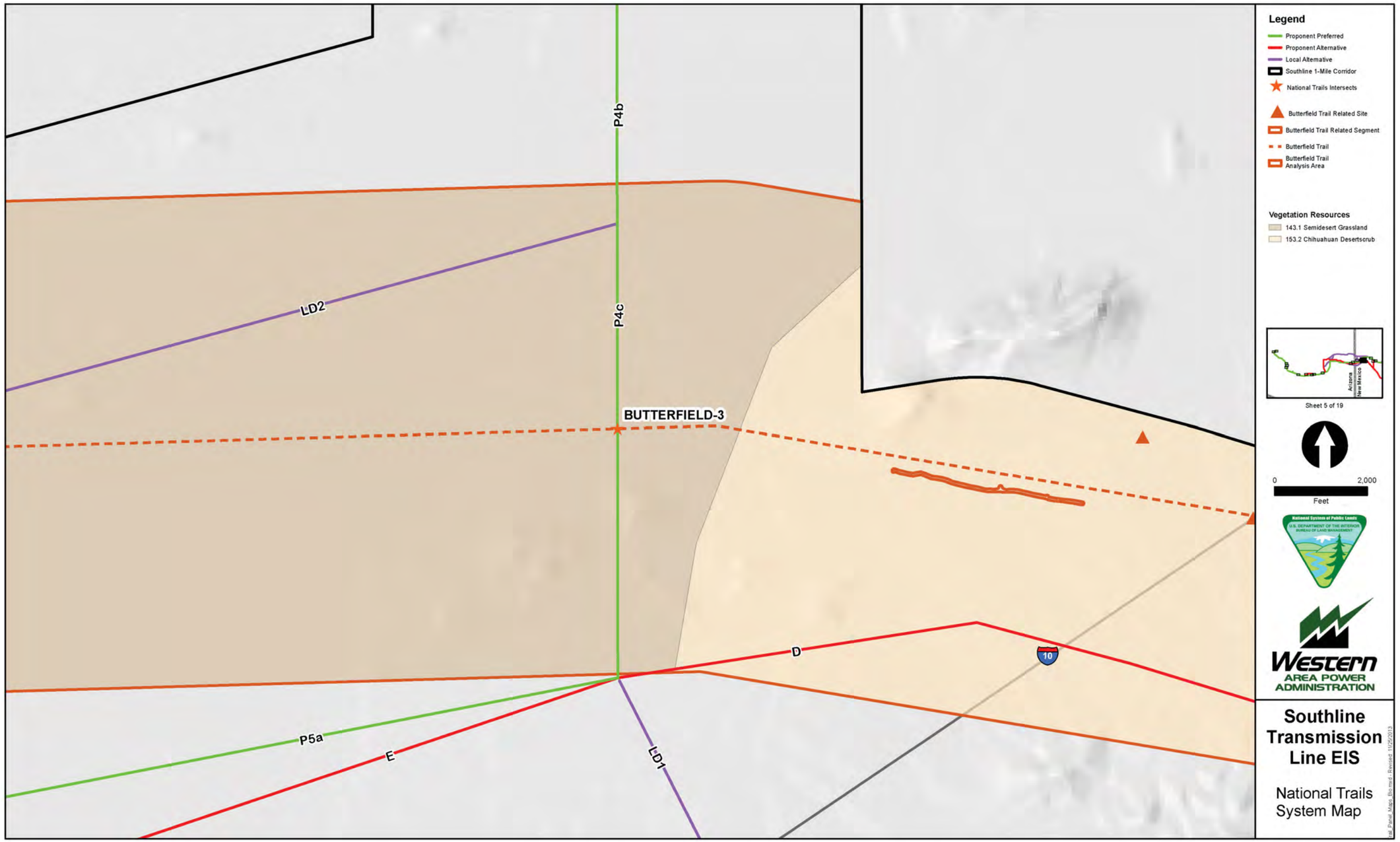


Figure F-28. Detailed trail inventory for cultural, biological, and other natural resources (Panel 6).

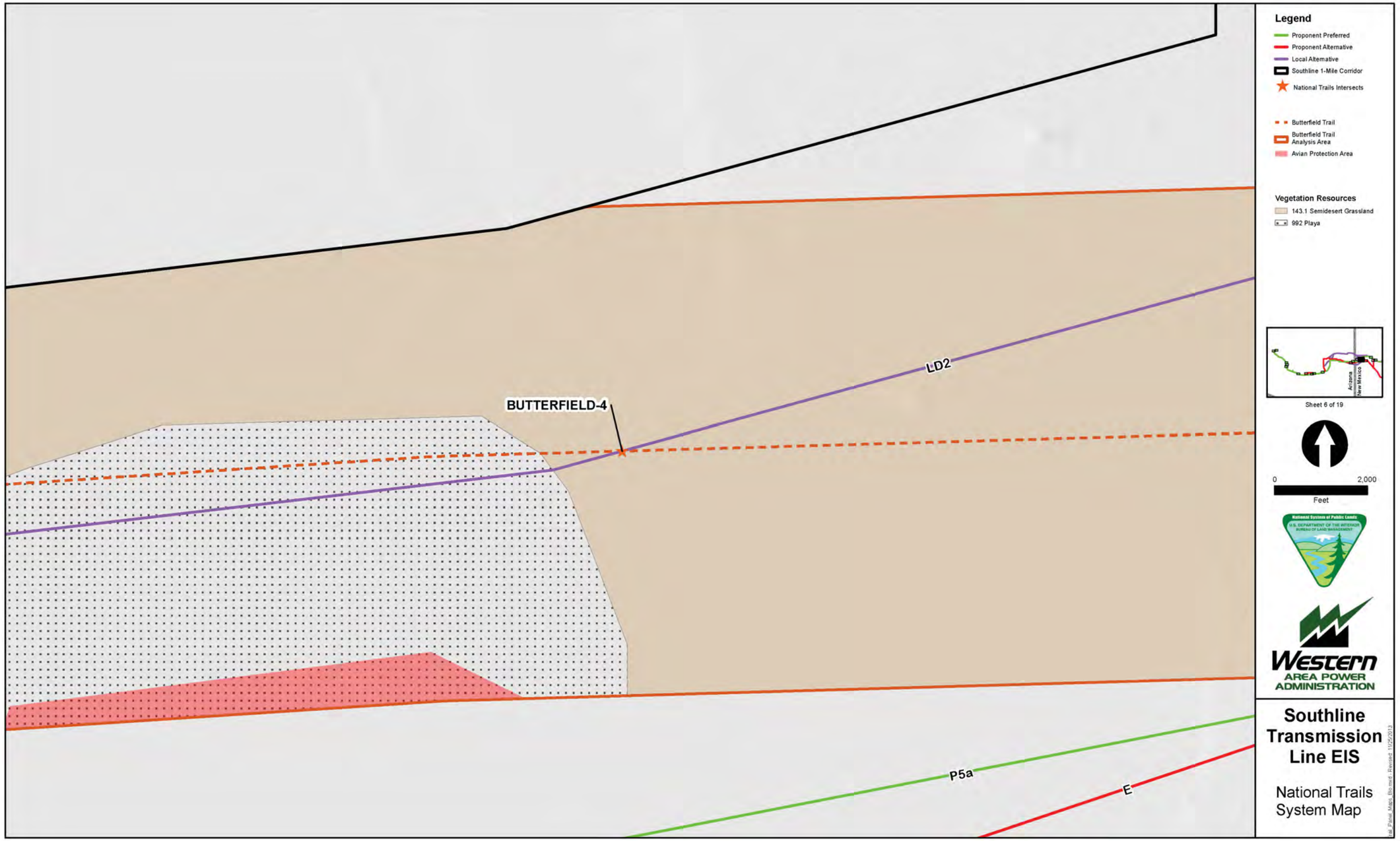


Figure F-29. Detailed trail inventory for cultural, biological, and other natural resources (Panel 7).

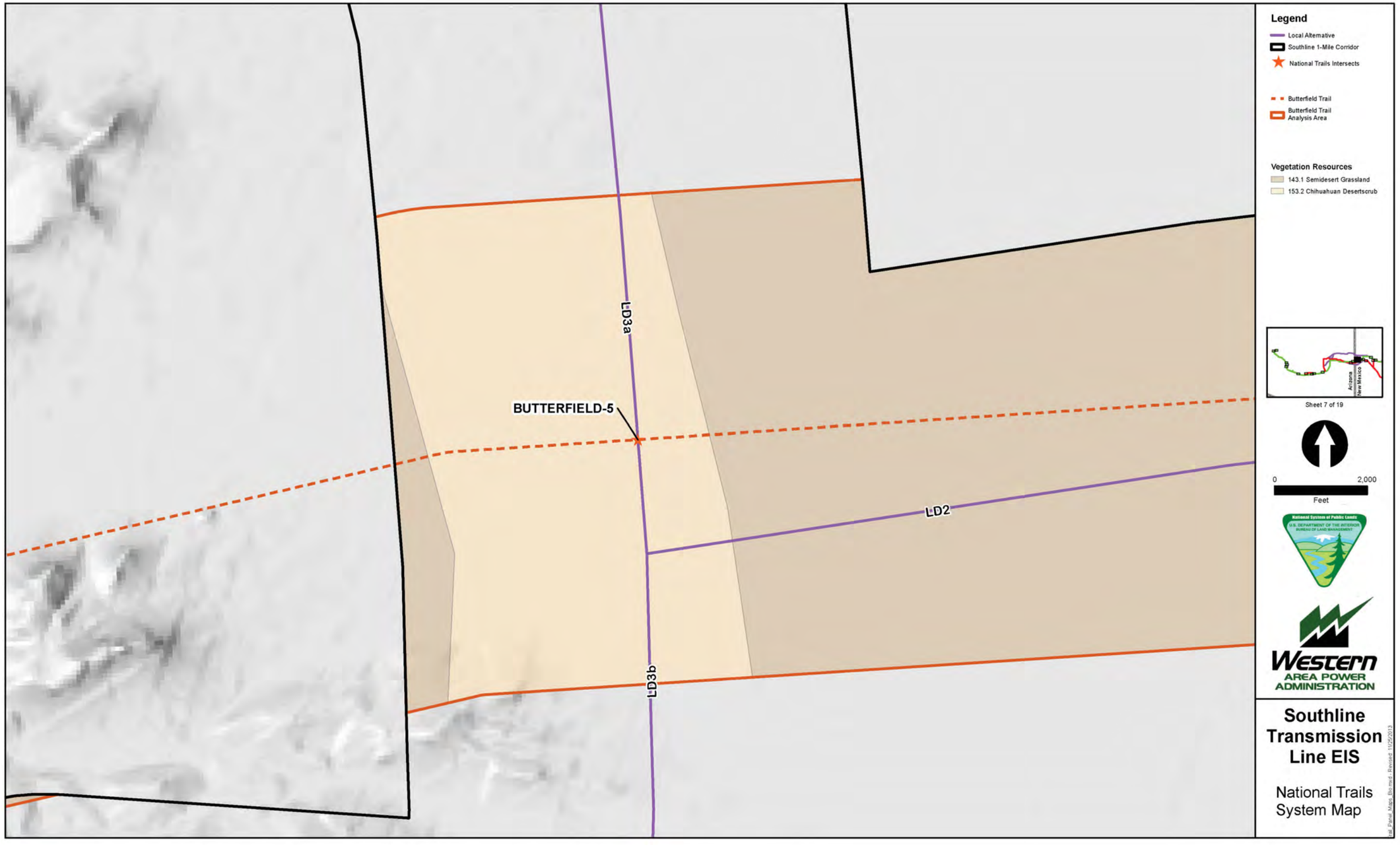


Figure F-30. Detailed trail inventory for cultural, biological, and other natural resources (Panel 8).

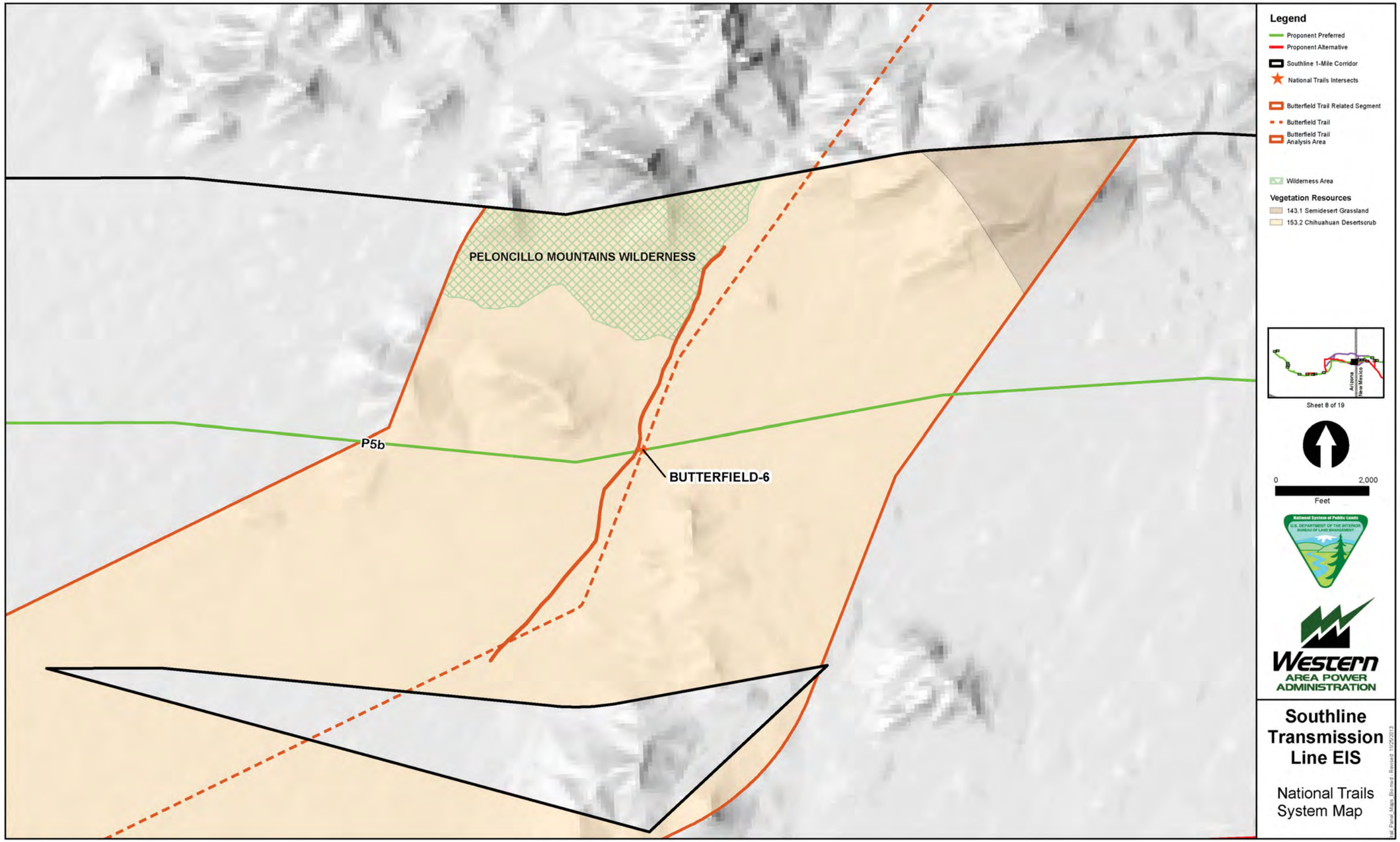


Figure F-31. Detailed trail inventory for cultural, biological, and other natural resources (Panel 9).

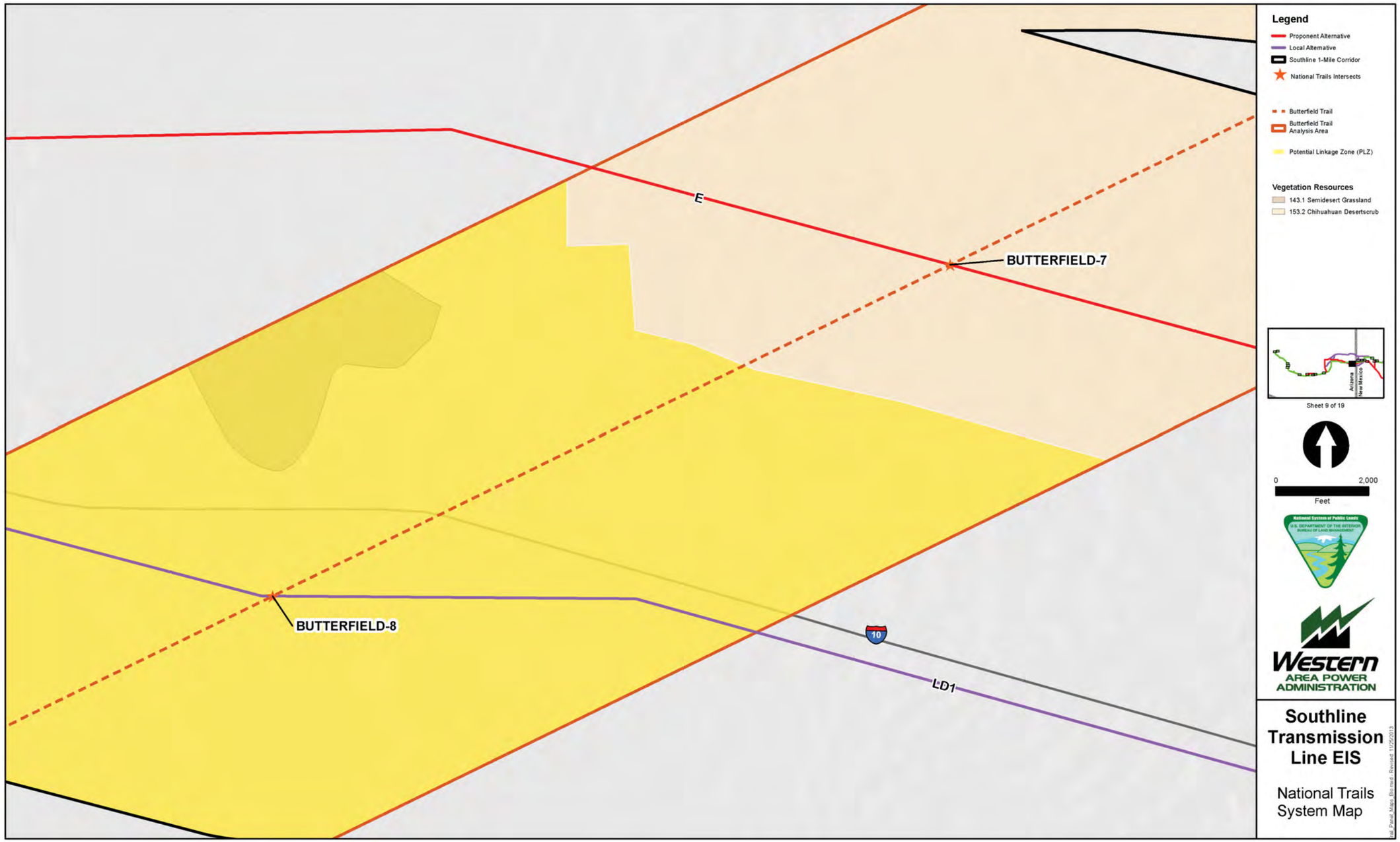


Figure F-32. Detailed trail inventory for cultural, biological, and other natural resources (Panel 10).

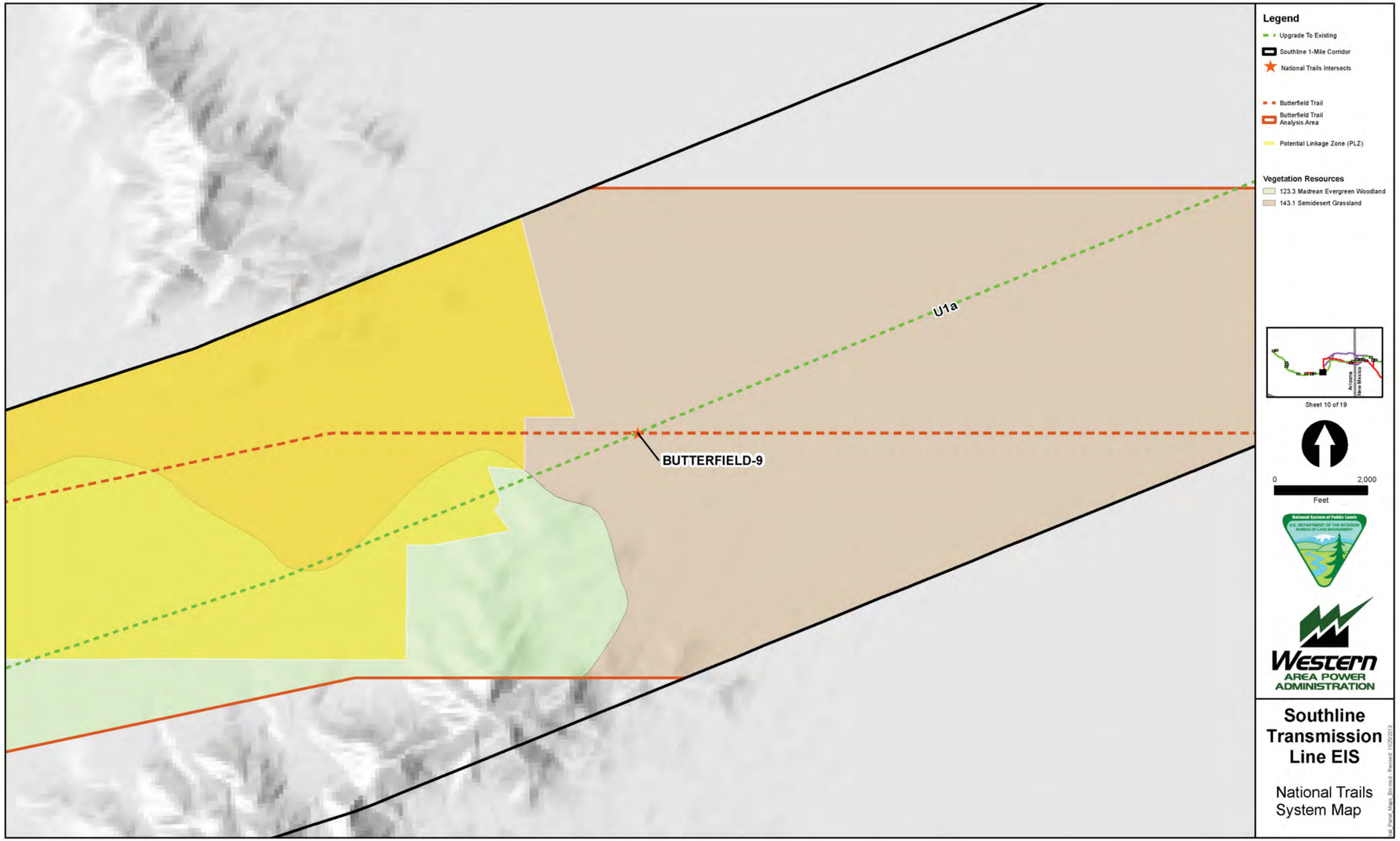


Figure F-33. Detailed trail inventory for cultural, biological, and other natural resources (Panel 11).

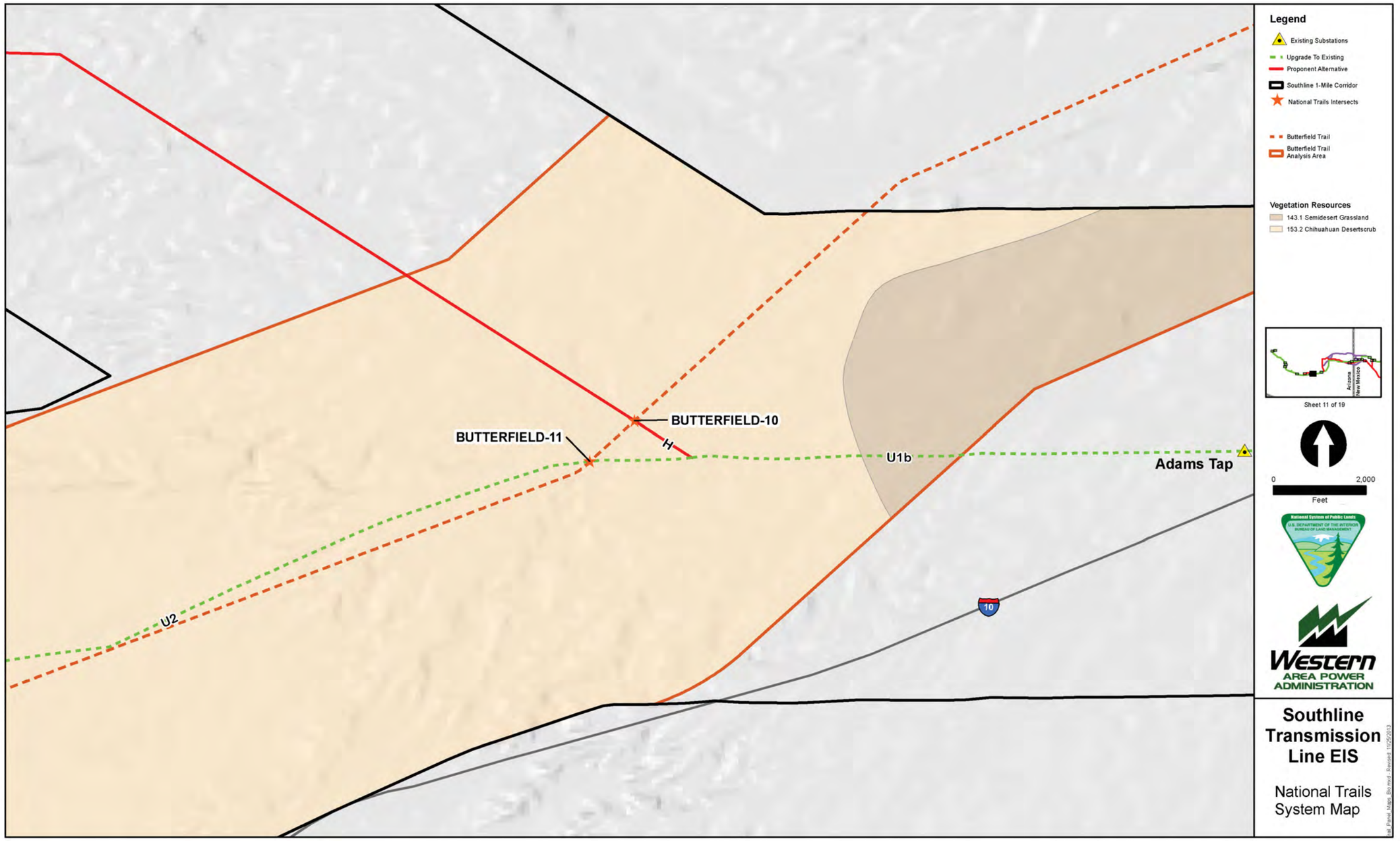


Figure F-34. Detailed trail inventory for cultural, biological, and other natural resources (Panel 12).

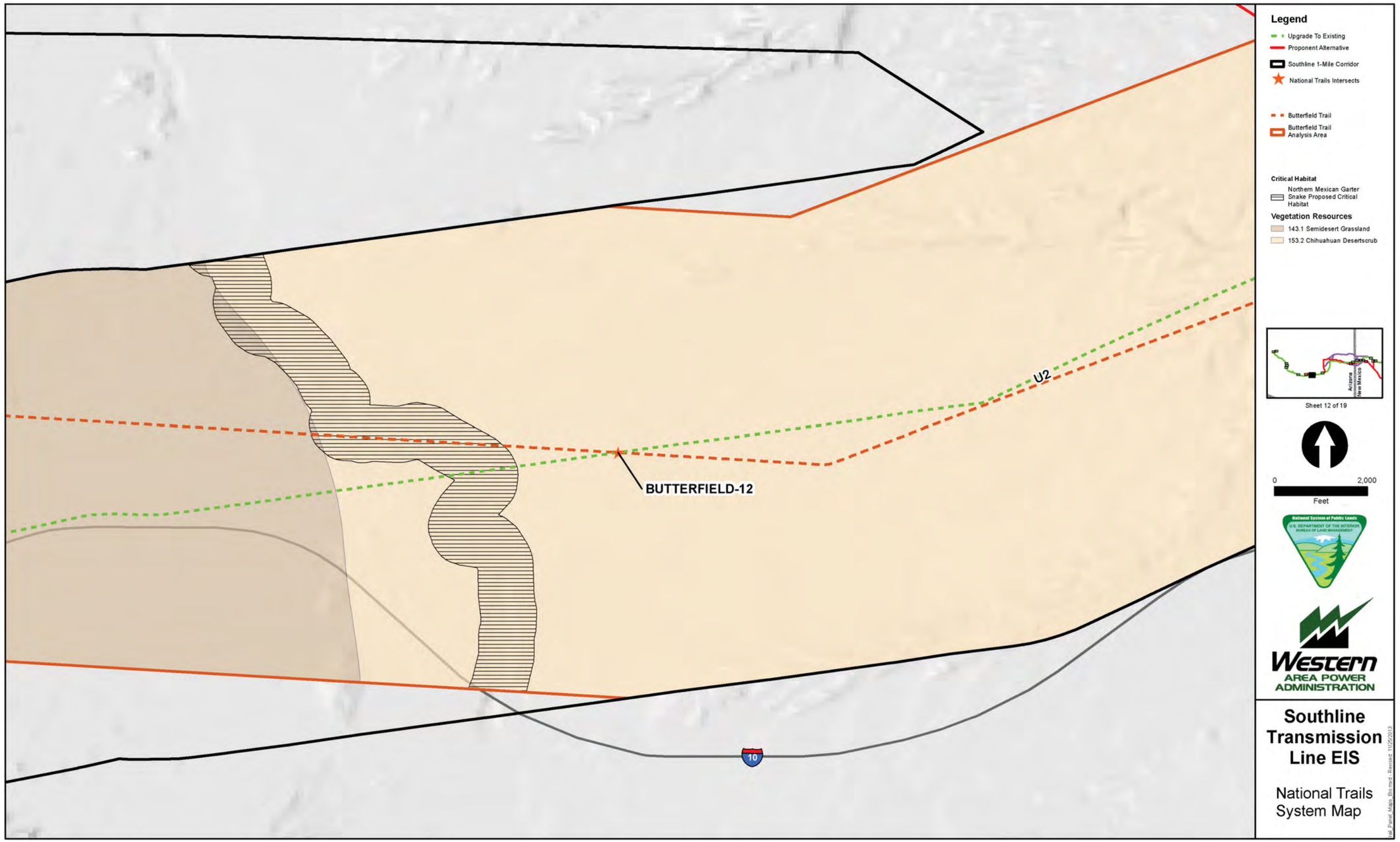


Figure F-35. Detailed trail inventory for cultural, biological, and other natural resources (Panel 13).

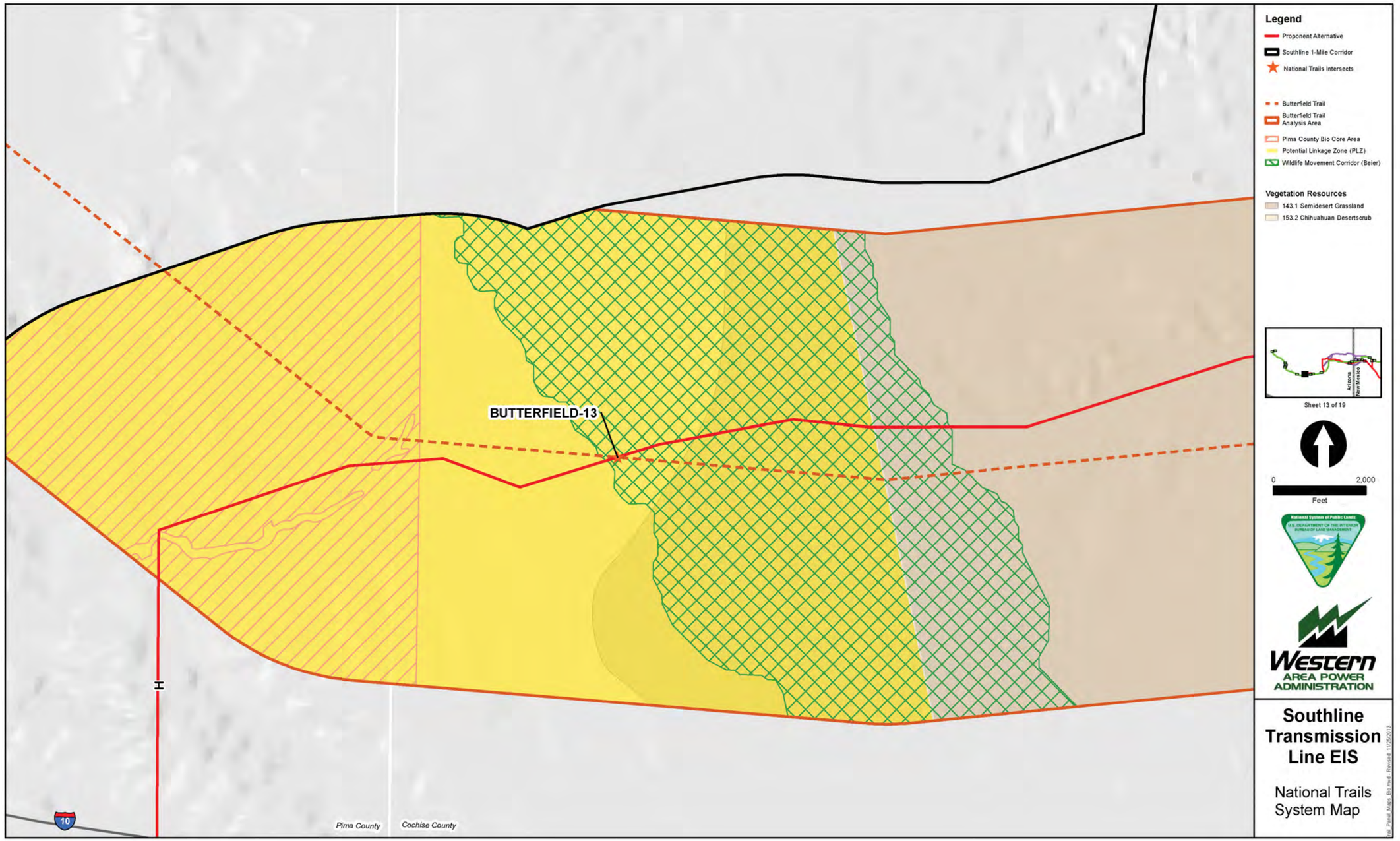


Figure F-36. Detailed trail inventory for cultural, biological, and other natural resources (Panel 14).

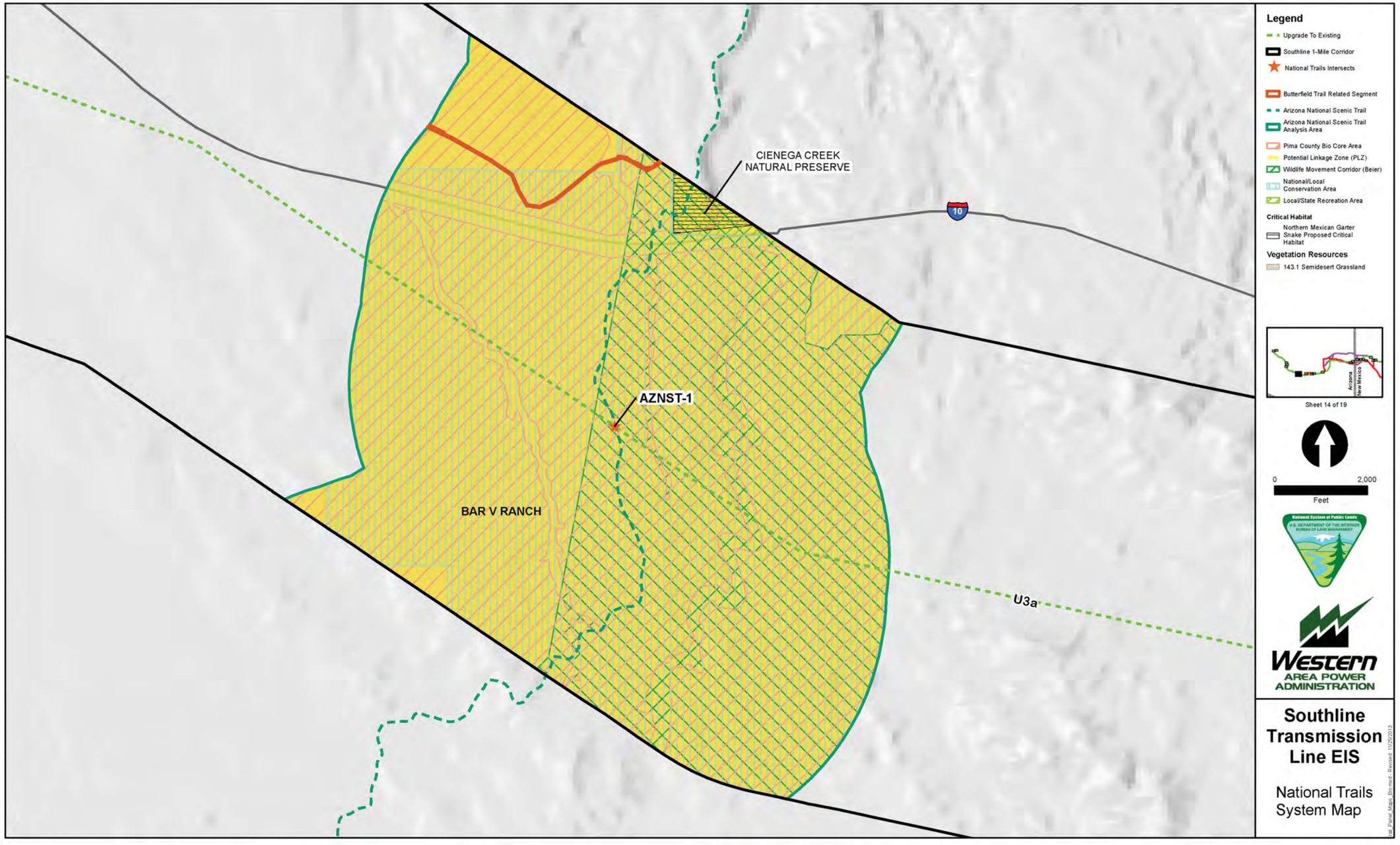


Figure F-37. Detailed trail inventory for cultural, biological, and other natural resources (Panel 15).

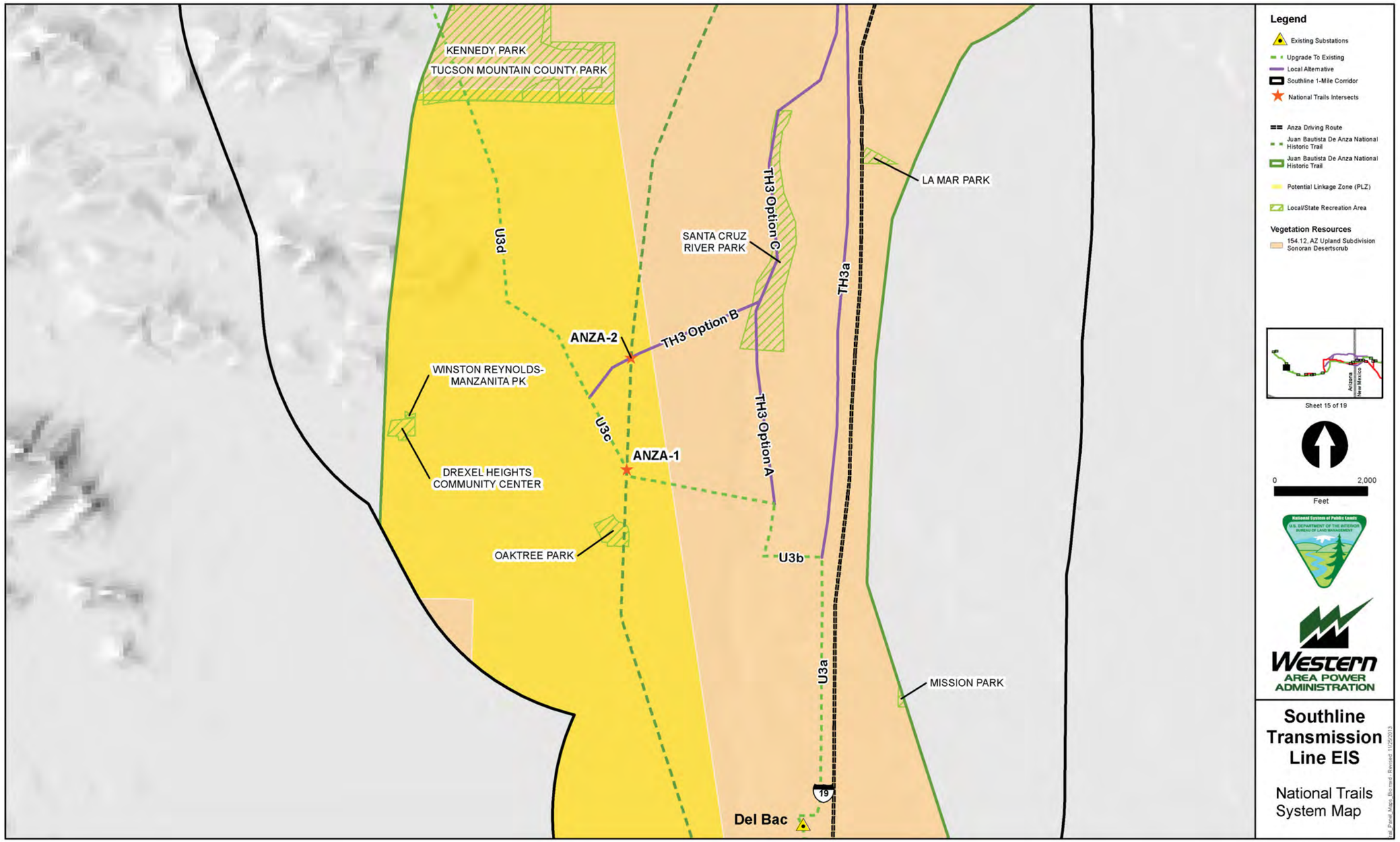


Figure F-38. Detailed trail inventory for cultural, biological, and other natural resources (Panel 16).

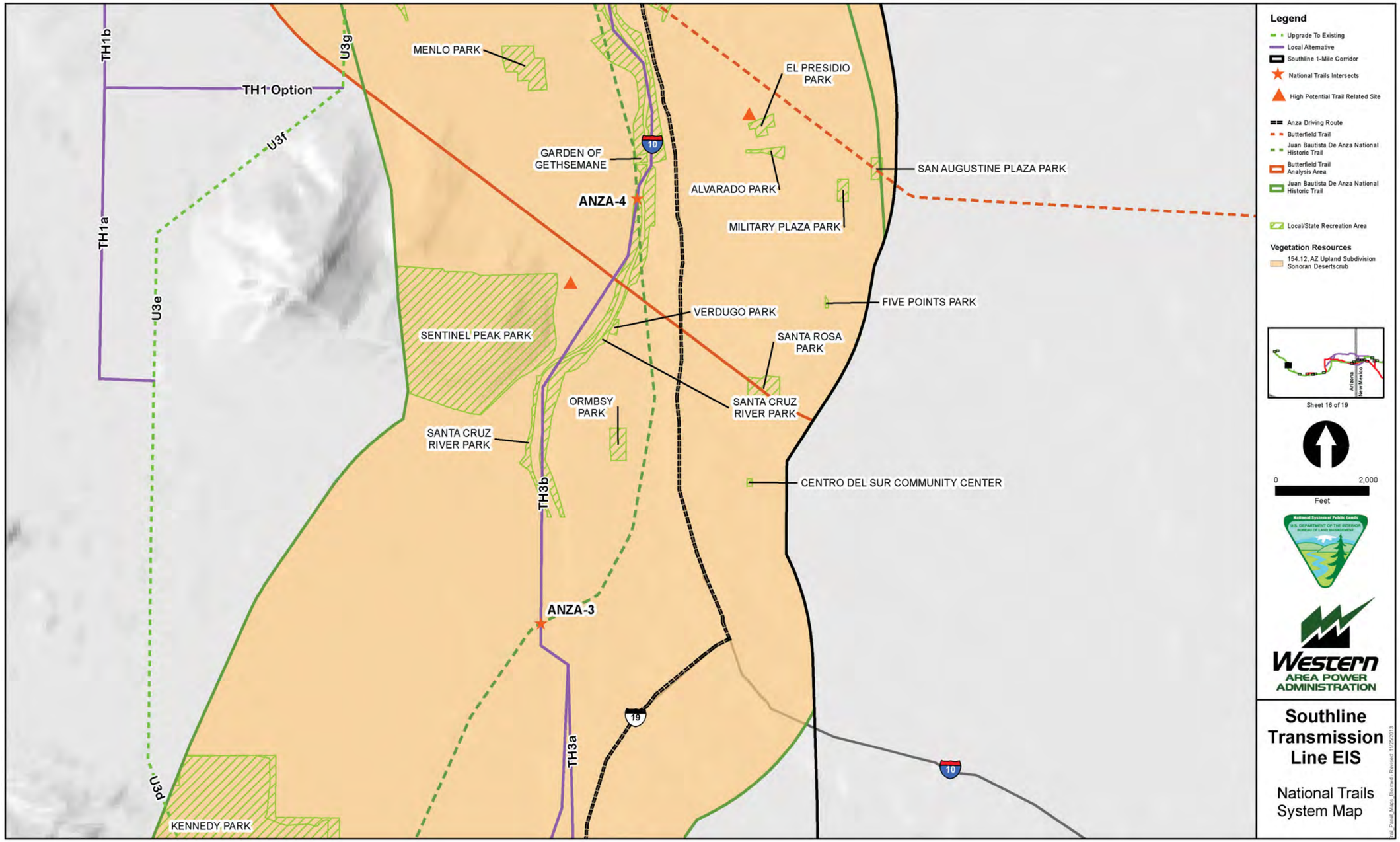


Figure F-39. Detailed trail inventory for cultural, biological, and other natural resources (Panel 17).

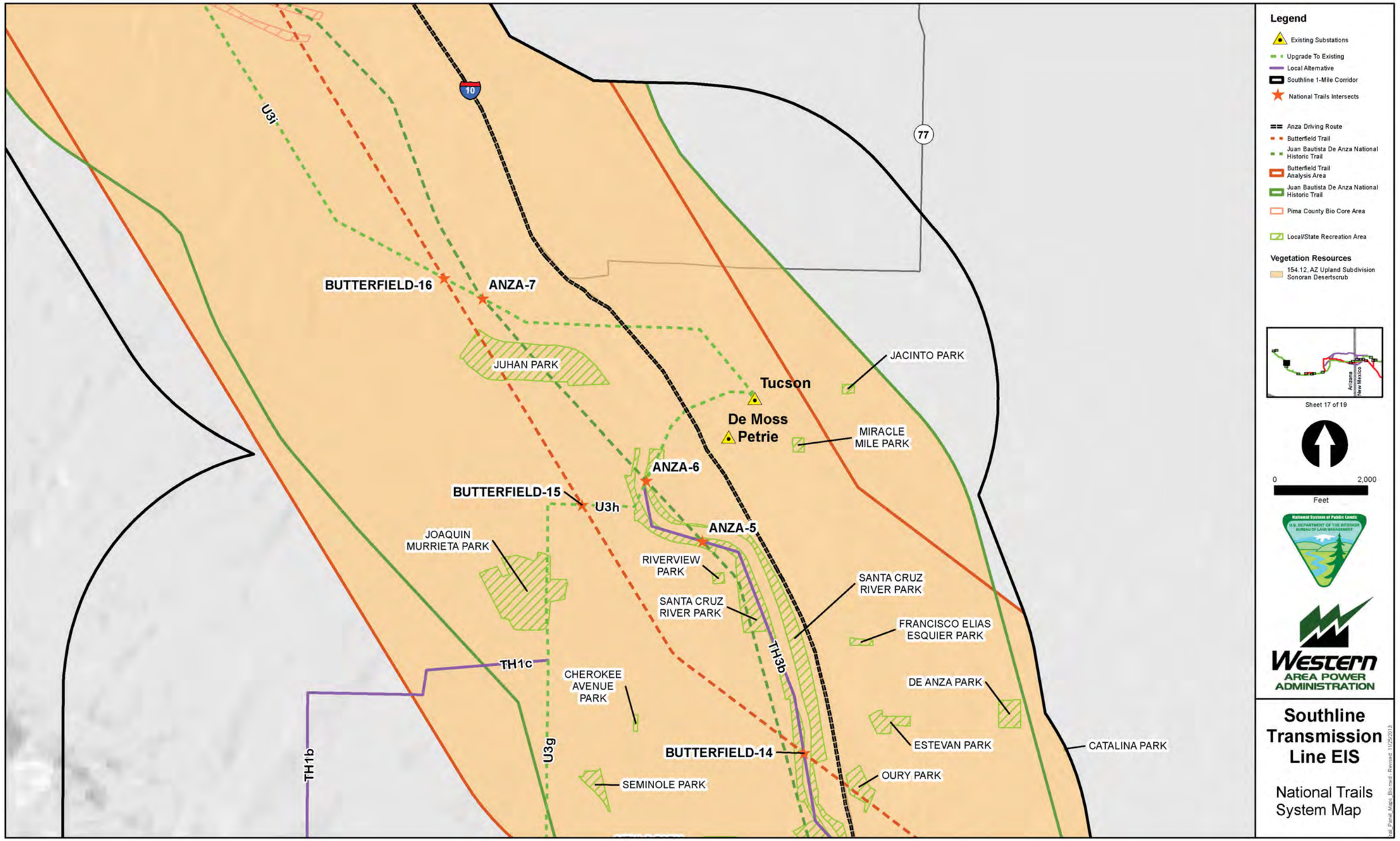


Figure F-40. Detailed trail inventory for cultural, biological, and other natural resources (Panel 18).

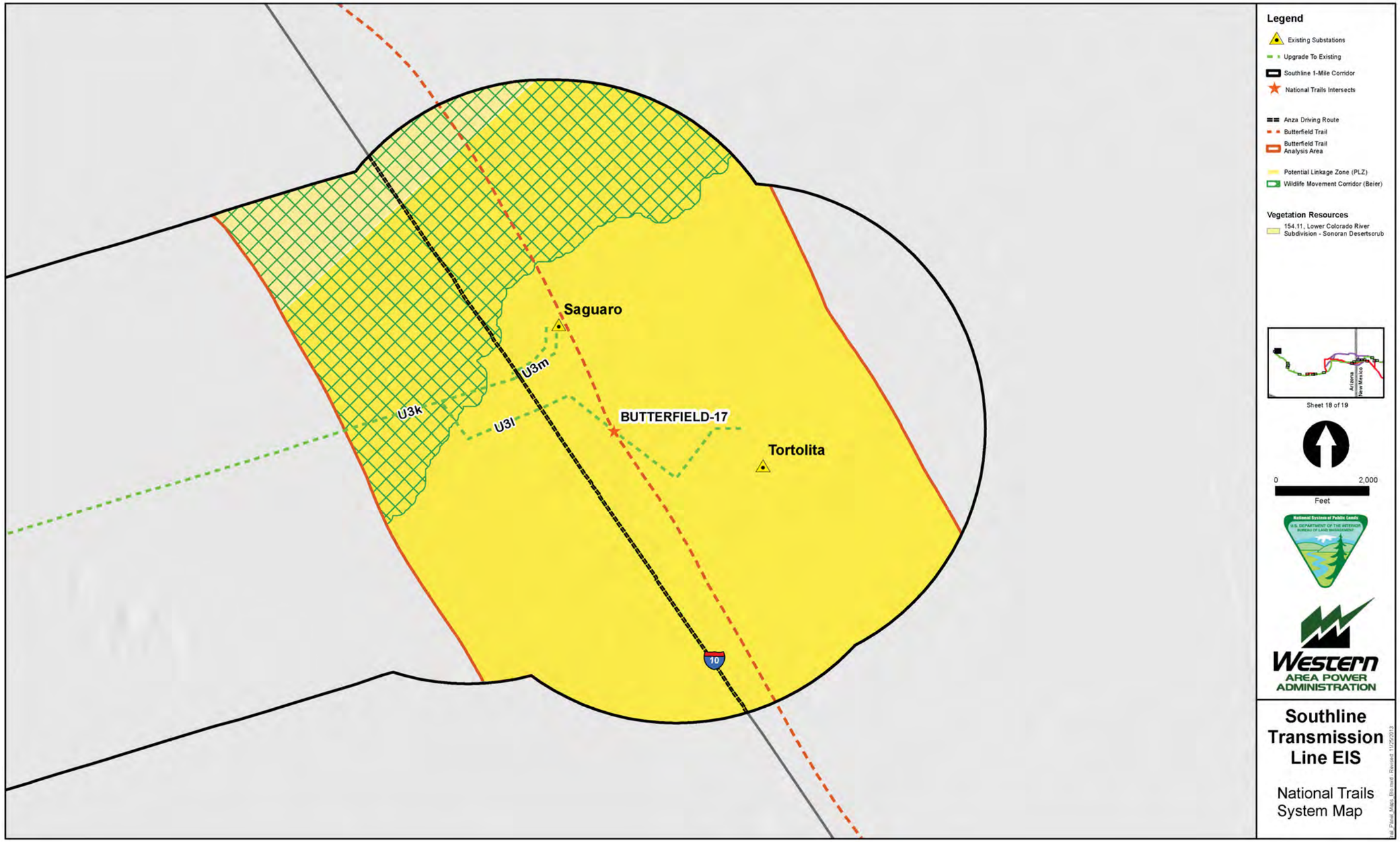


Figure F-41. Detailed trail inventory for cultural, biological, and other natural resources (Panel 19).

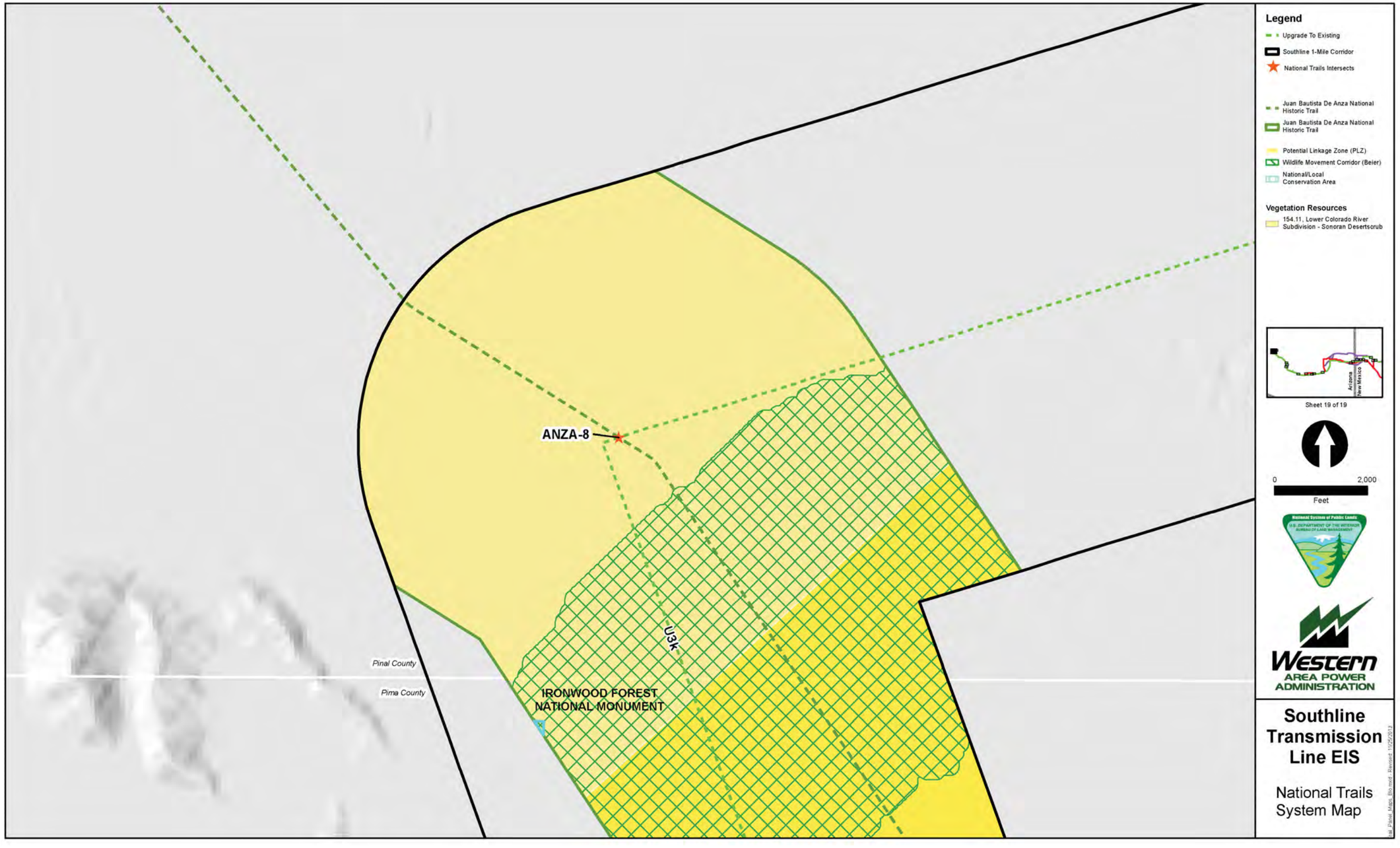


Figure F-42. Composite impact assessment results (Panel 1).

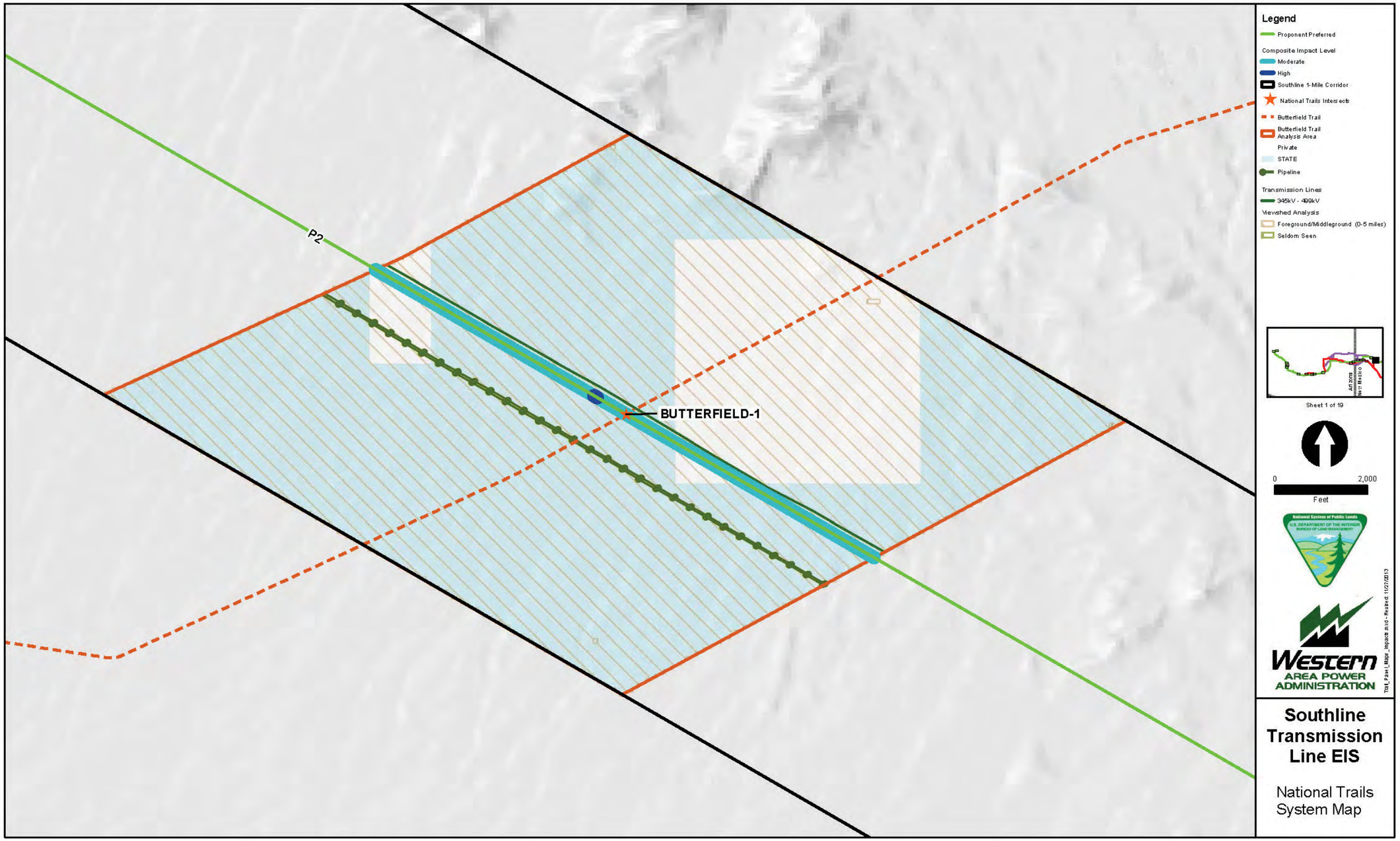


Figure F-43. Composite impact assessment results (Panel 2).

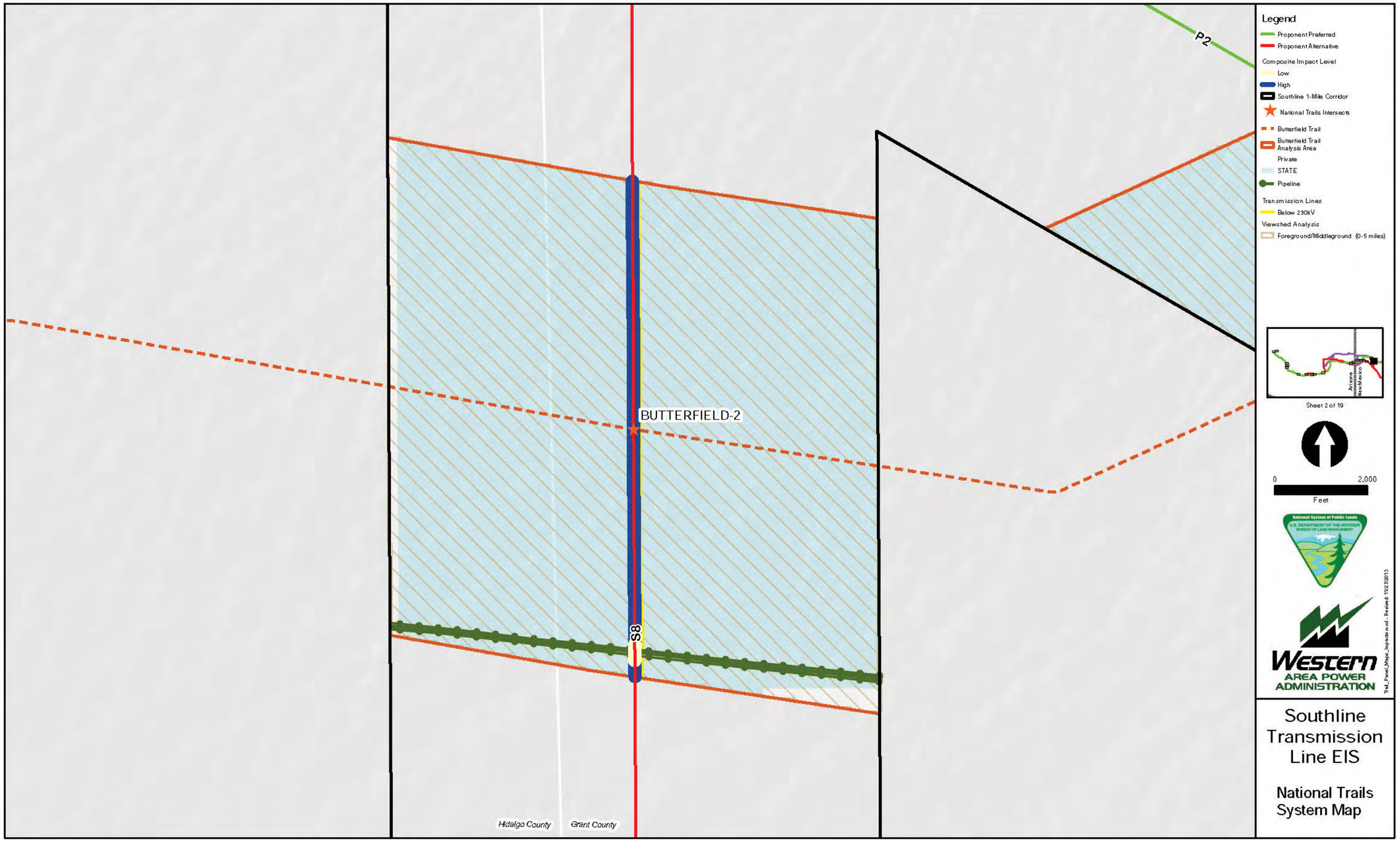


Figure F-44. Composite impact assessment results (Panel 3).

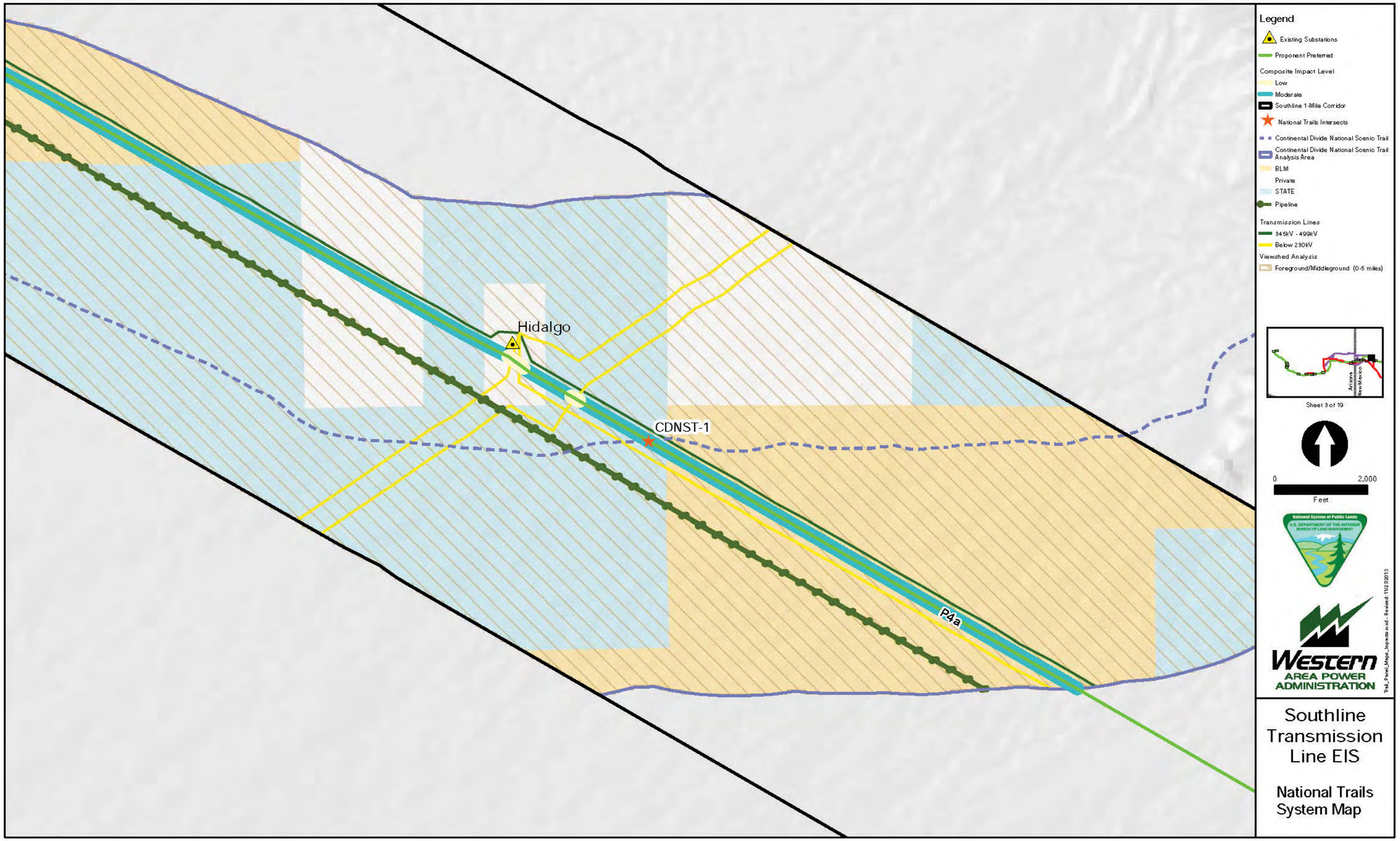


Figure F-45. Composite impact assessment results (Panel 4).

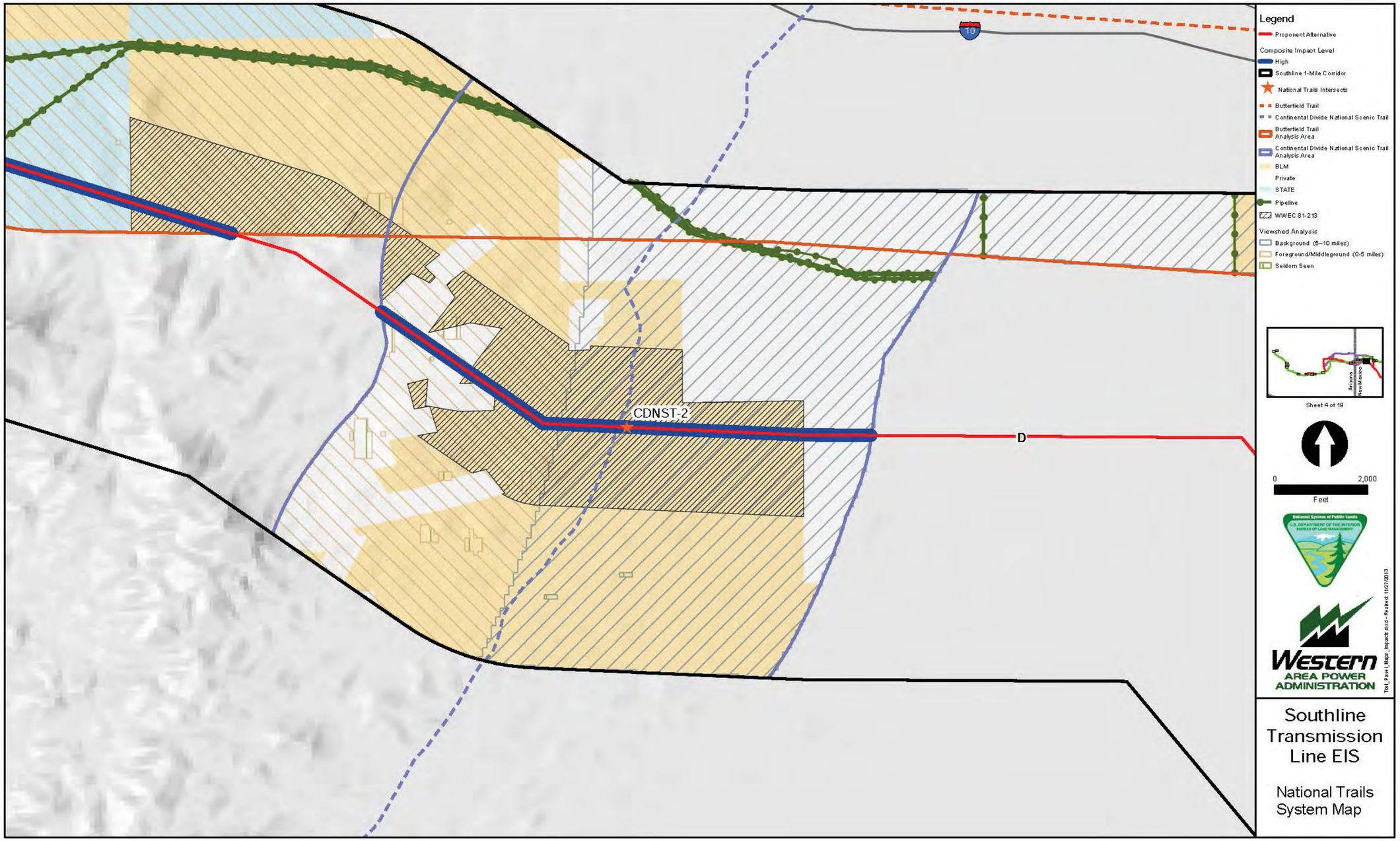


Figure F-46. Composite impact assessment results (Panel 5).

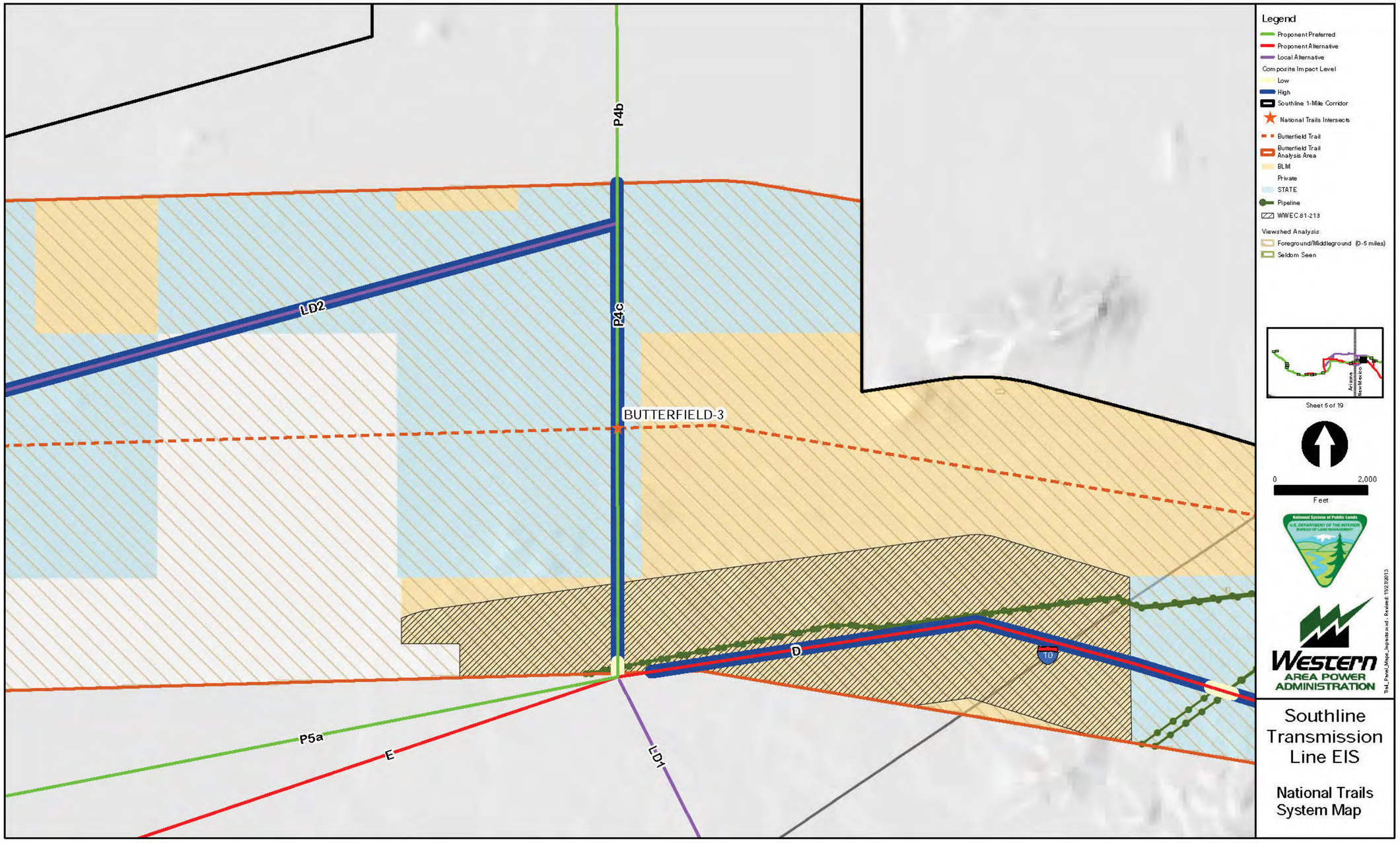


Figure F-47. Composite impact assessment results (Panel 6).

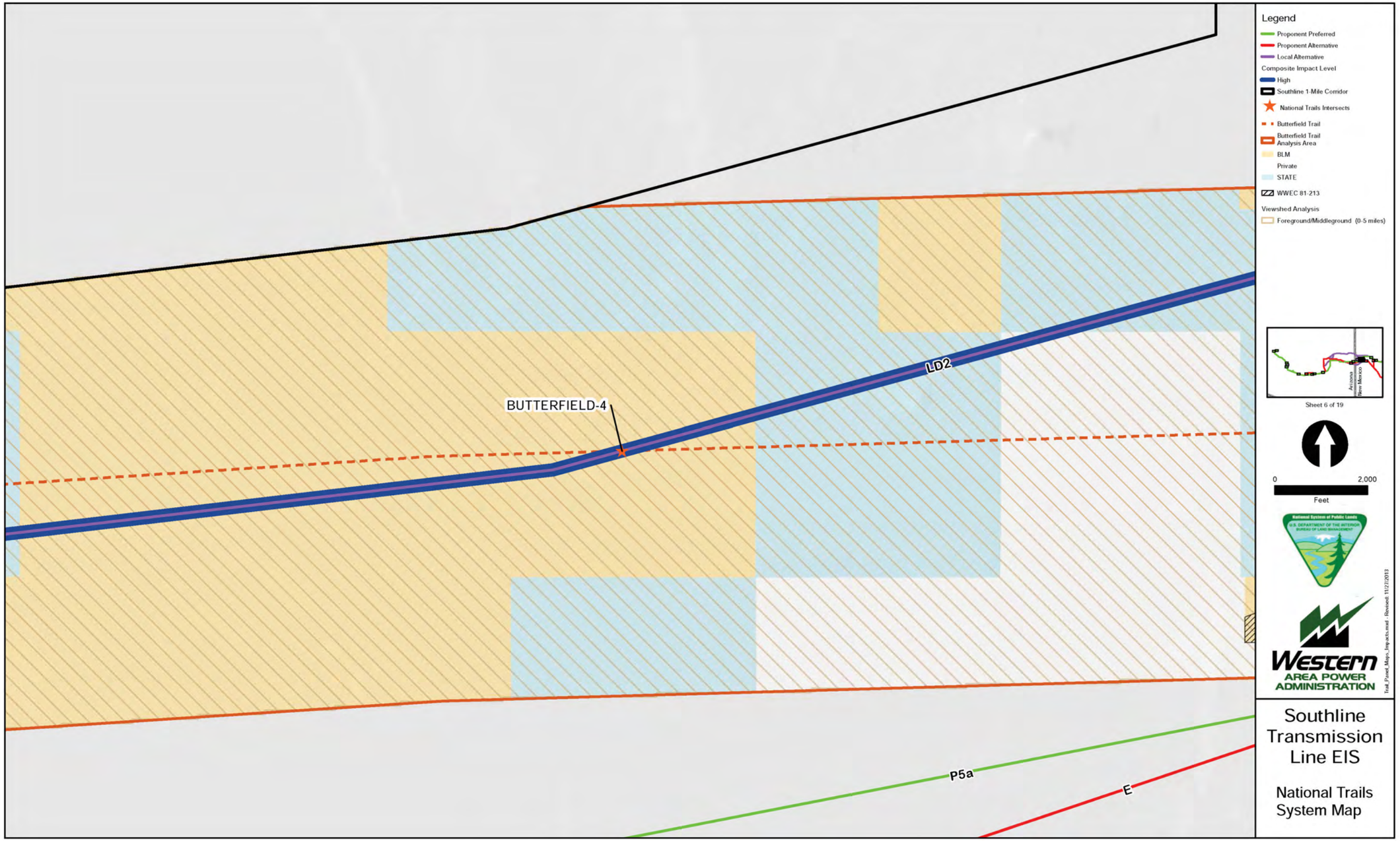


Figure F-48. Composite impact assessment results (Panel 7).

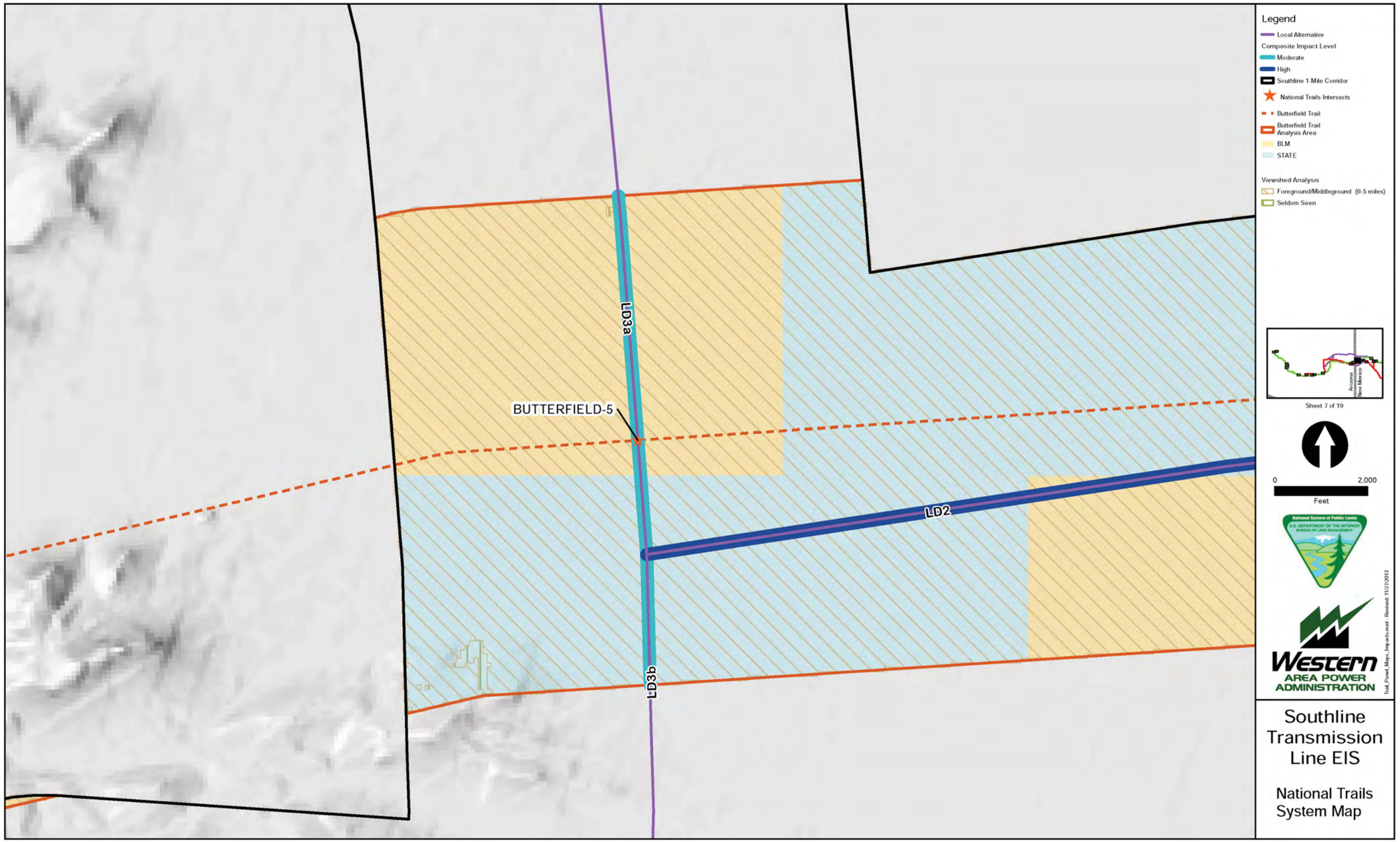


Figure F-49. Composite impact assessment results (Panel 8).

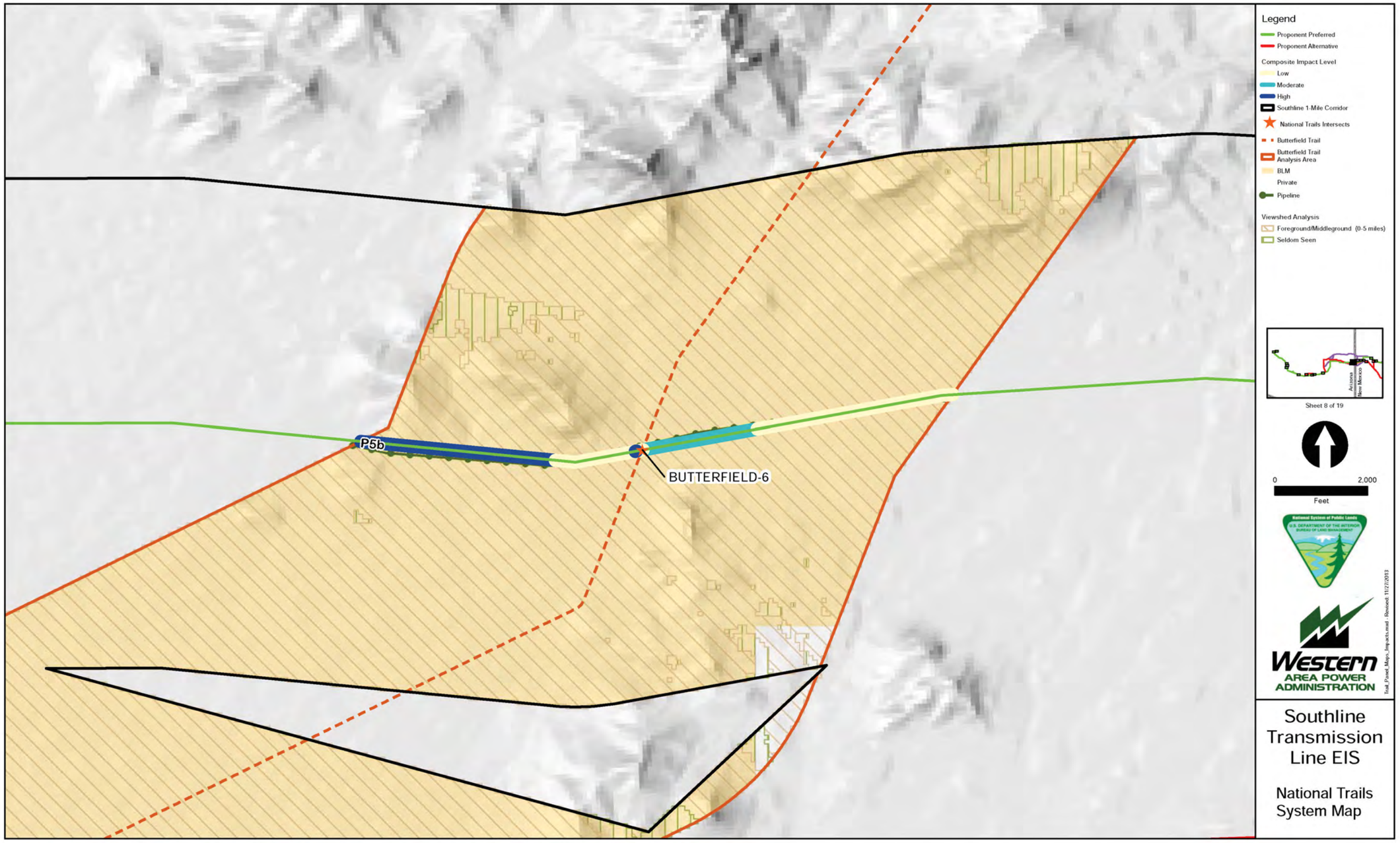


Figure F-50. Composite impact assessment results (Panel 9).

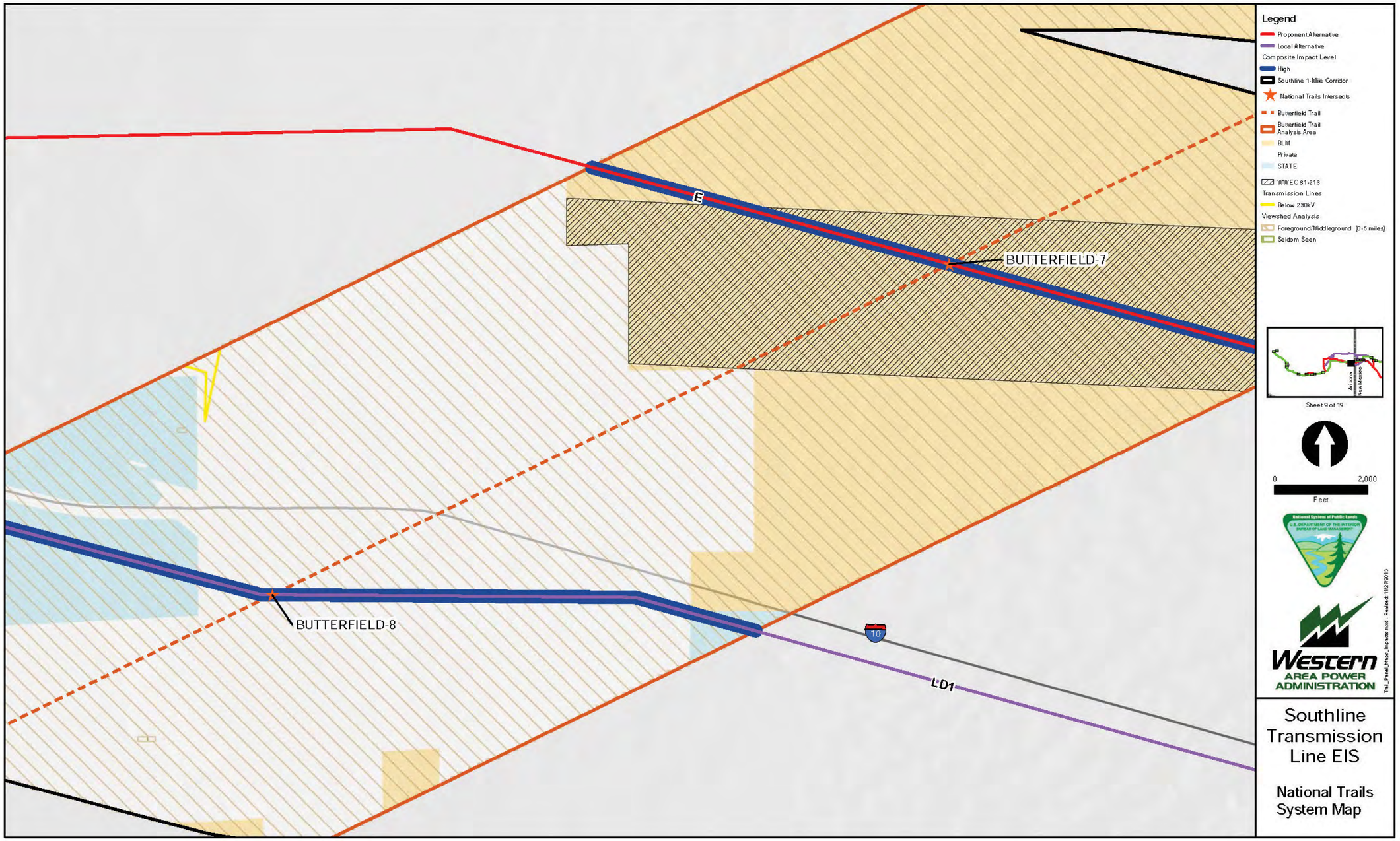


Figure F-51. Composite impact assessment results (Panel 10.)

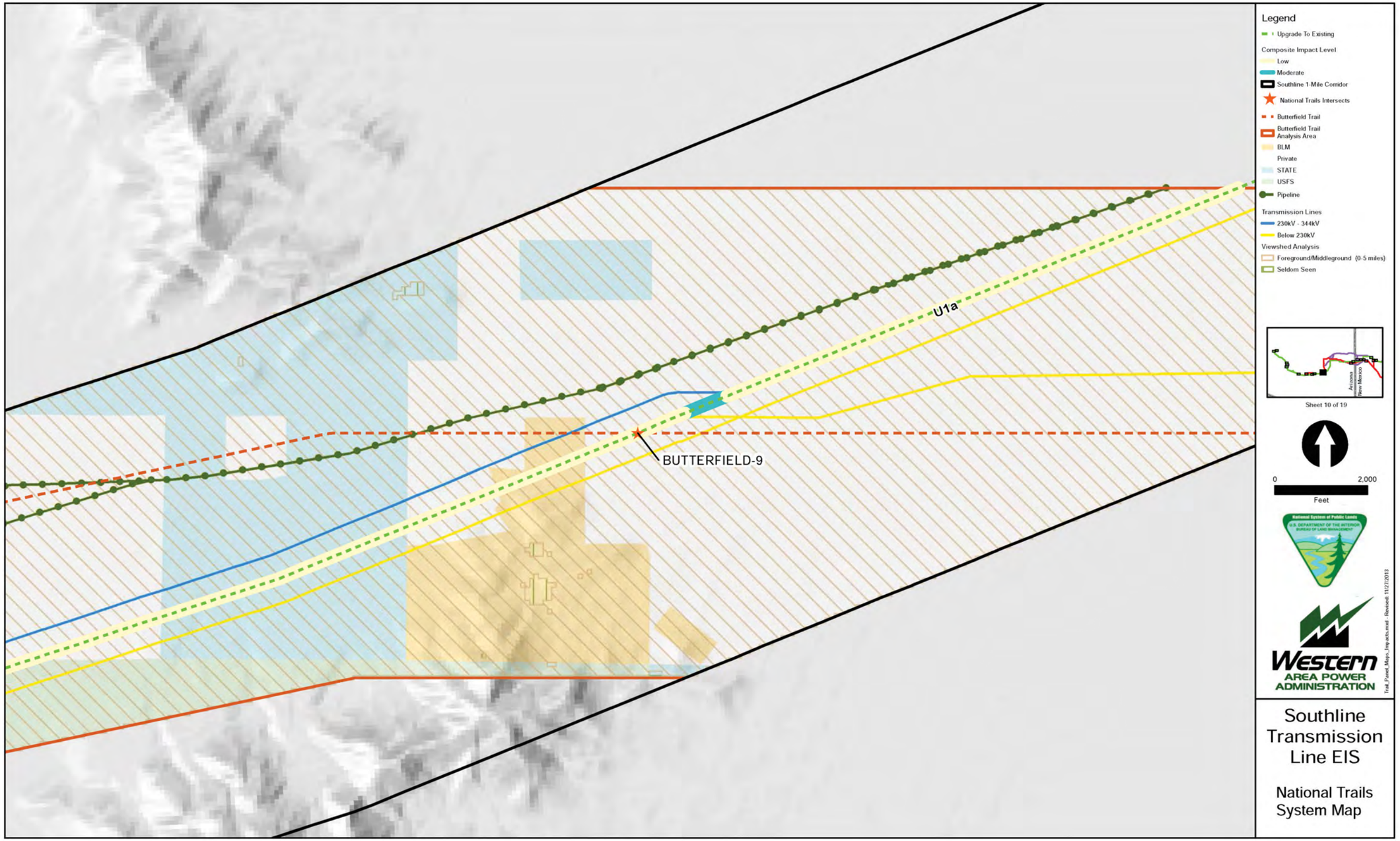


Figure F-52. Composite impact assessment results (Panel 11).

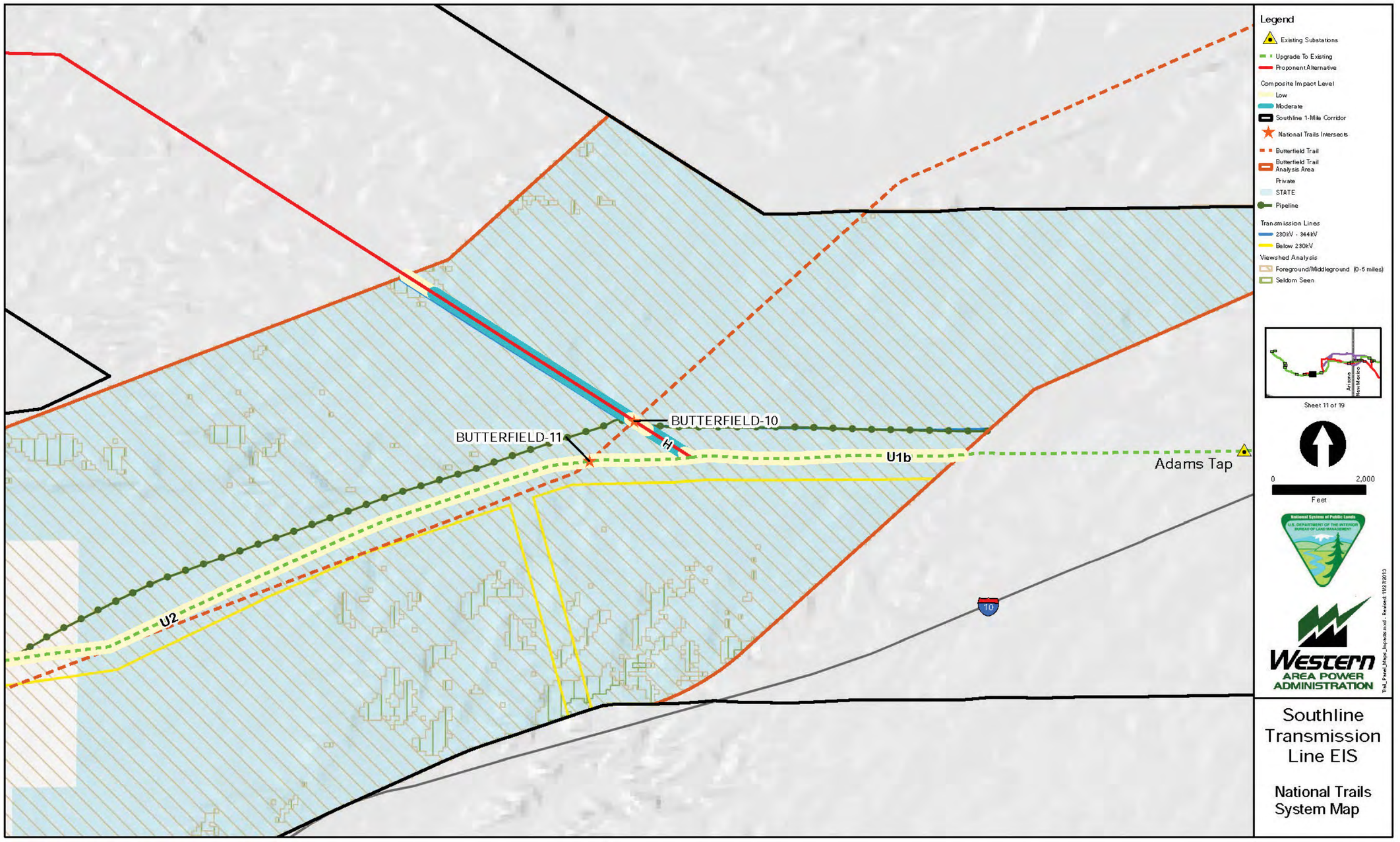


Figure F-53. Composite impact assessment results (Panel 12).

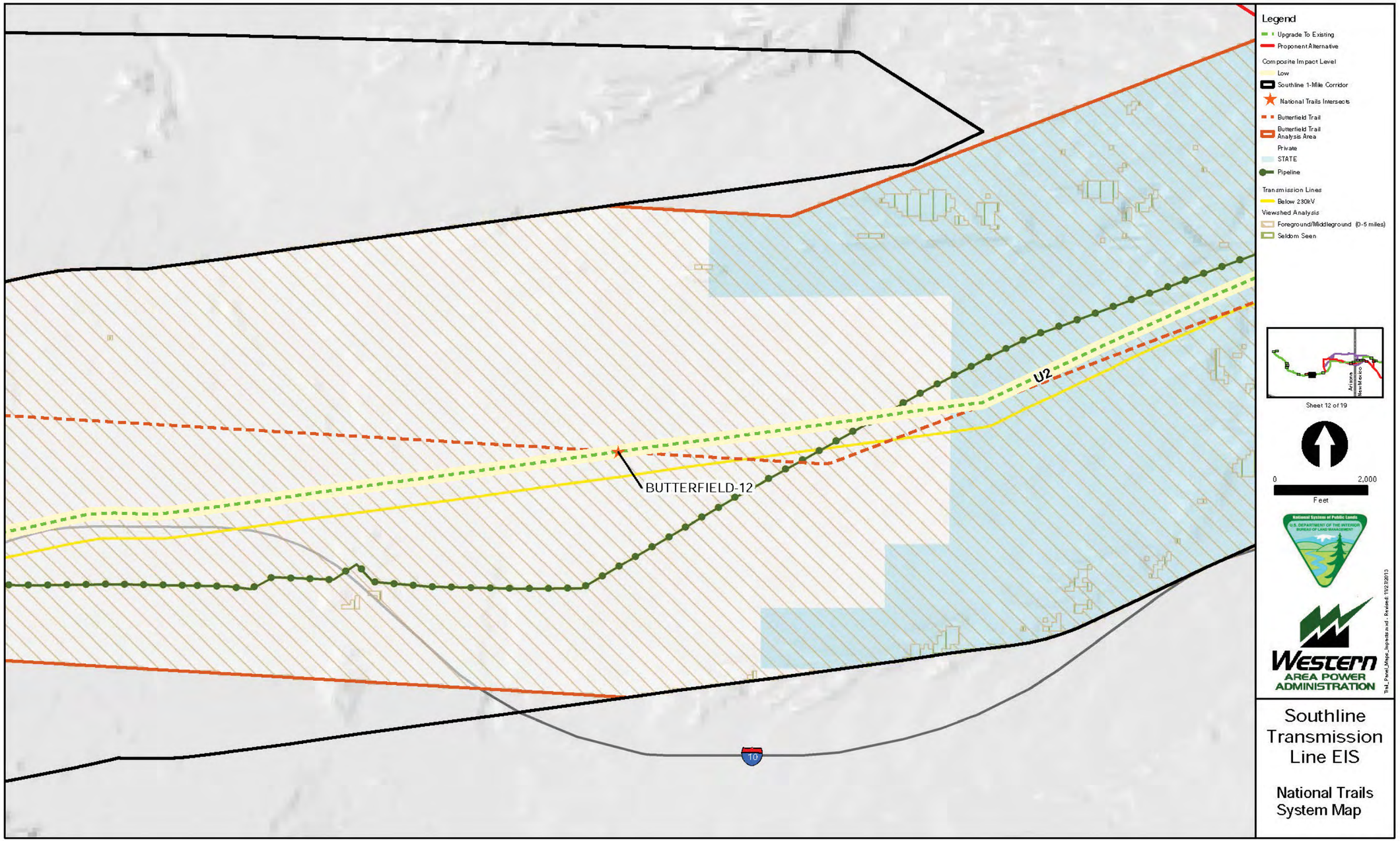


Figure F-54. Composite impact assessment results (Panel 13).

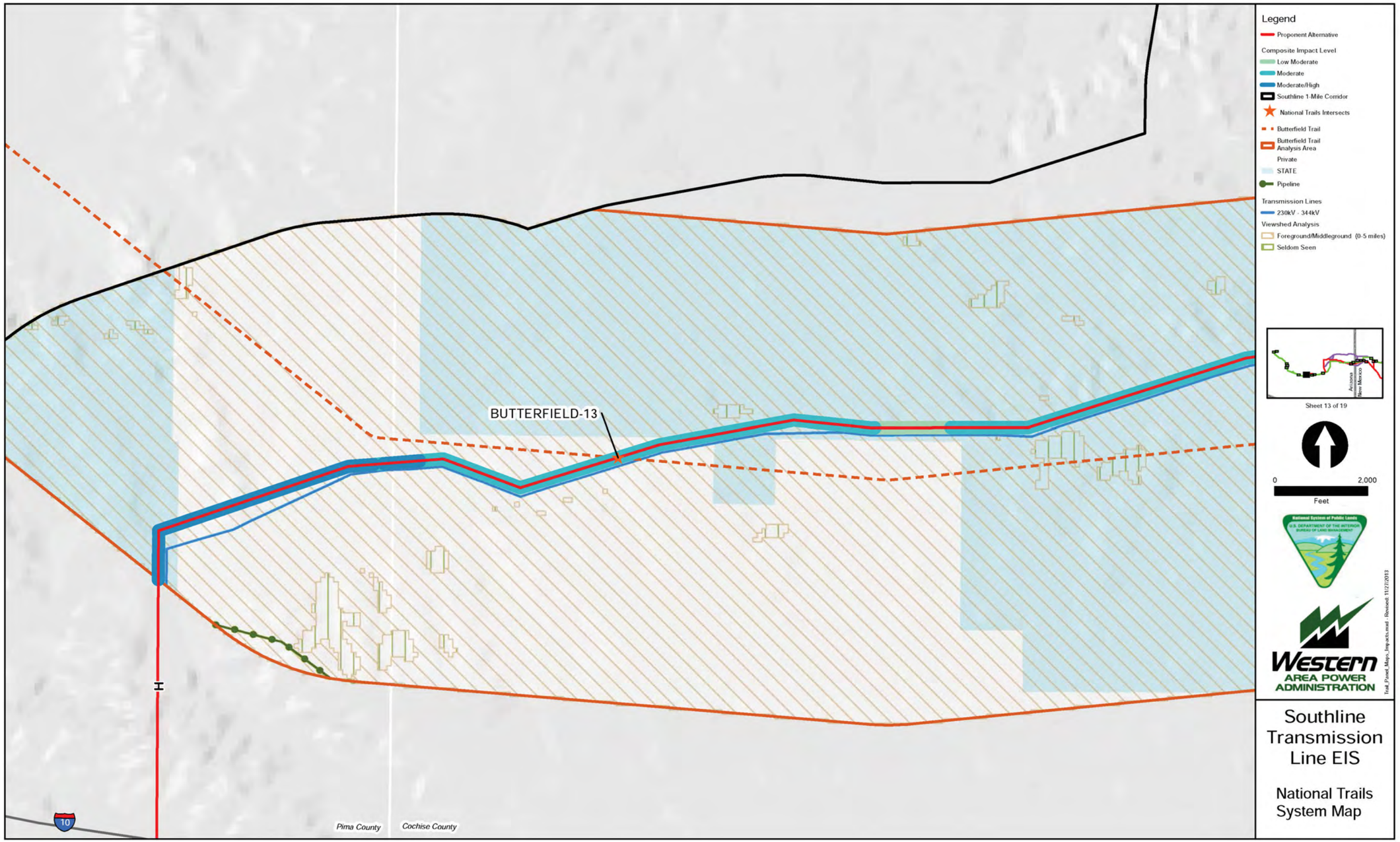


Figure F-55. Composite impact assessment results (Panel 14).

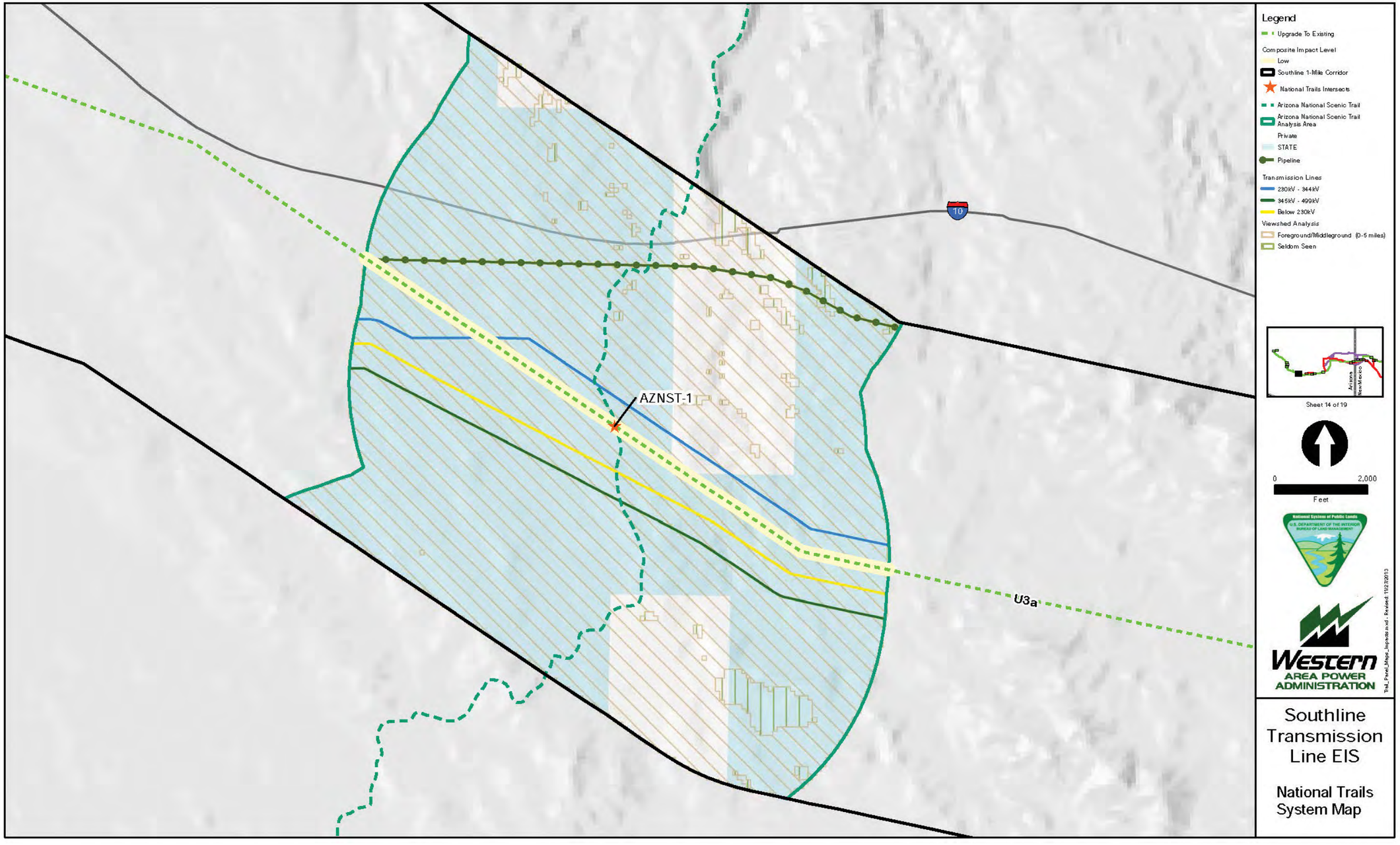


Figure F-56. Composite impact assessment results (Panel 15).

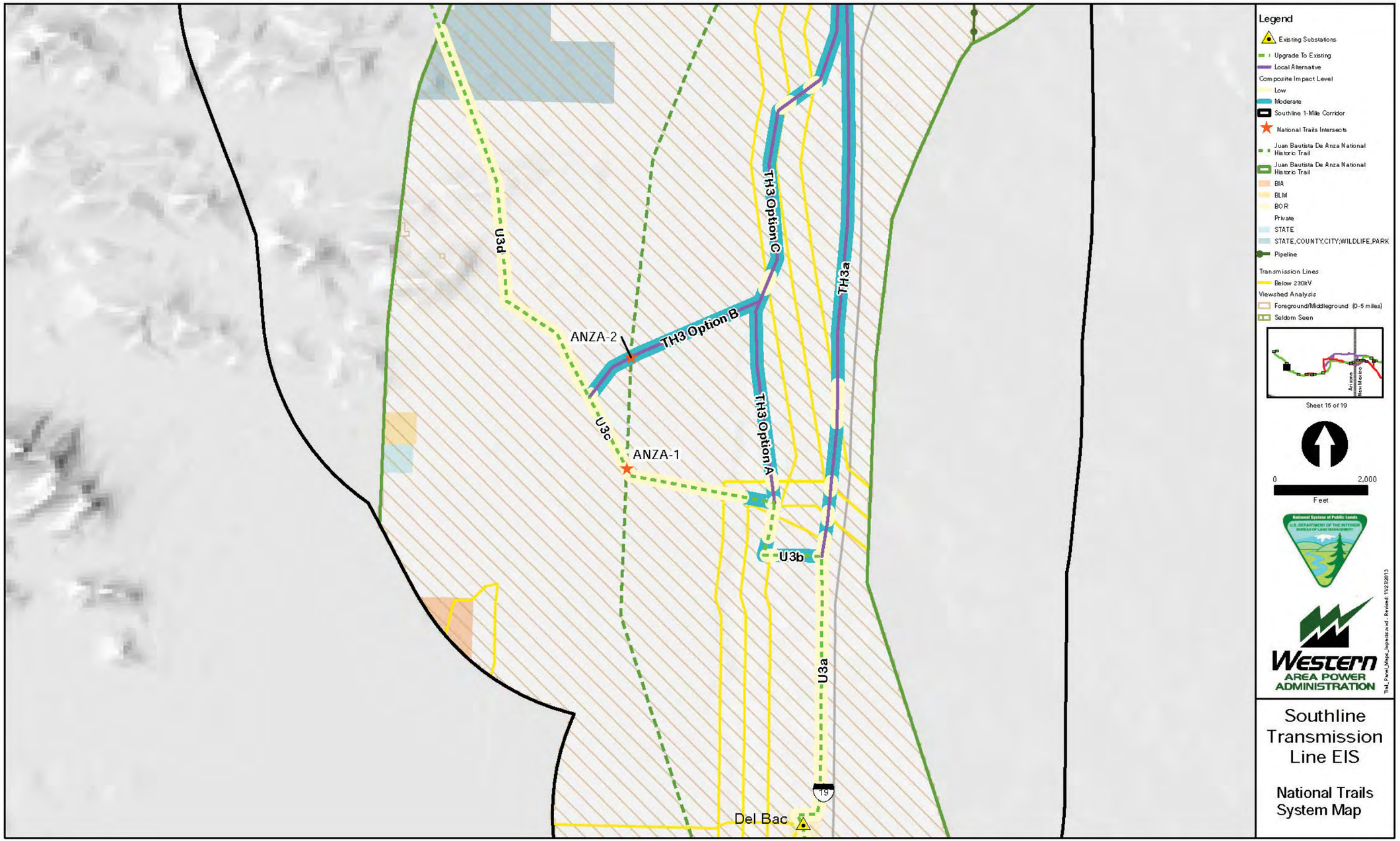


Figure F-57. Composite impact assessment results (Panel 16).

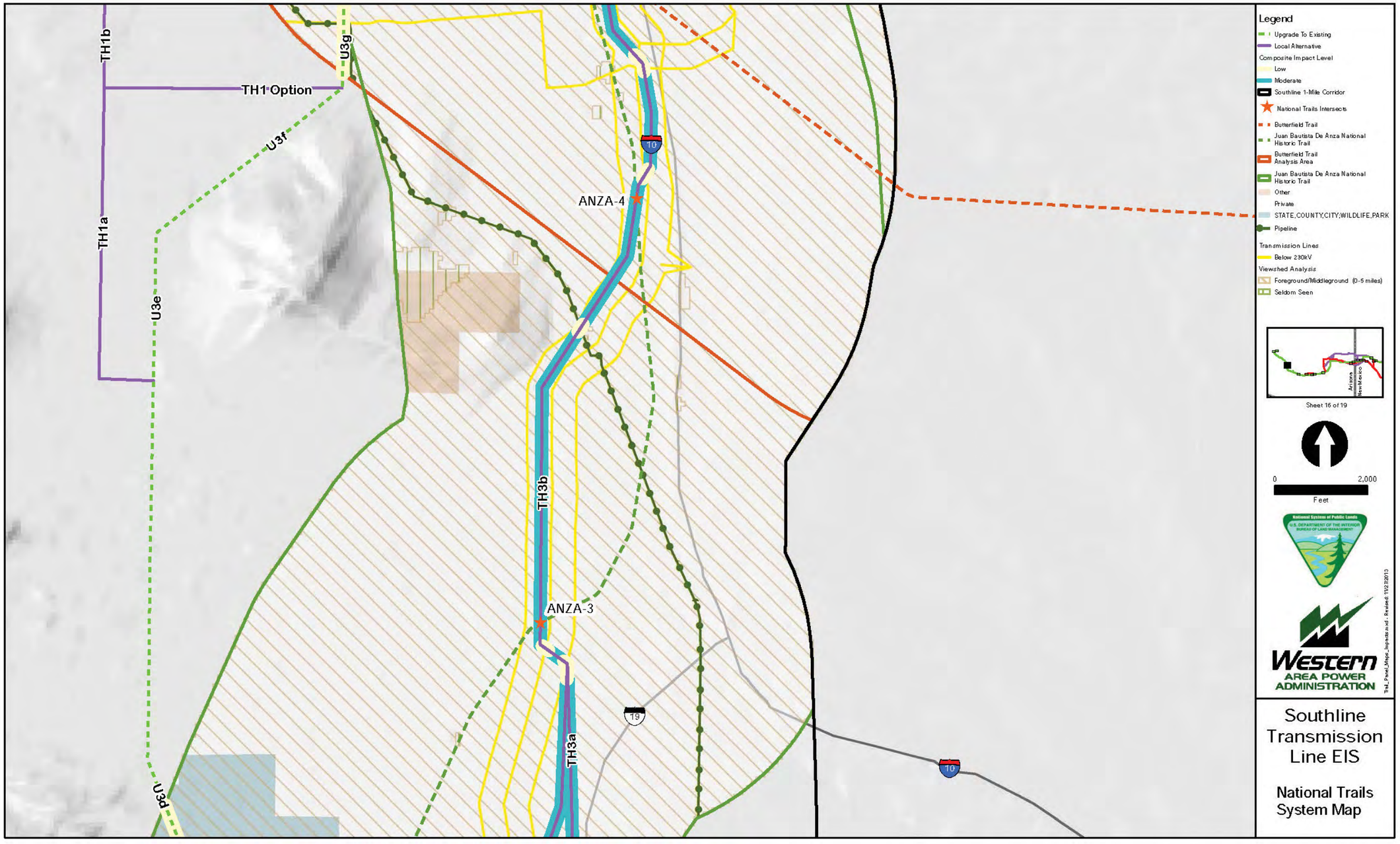


Figure F-58. Composite impact assessment results (Panel 17).

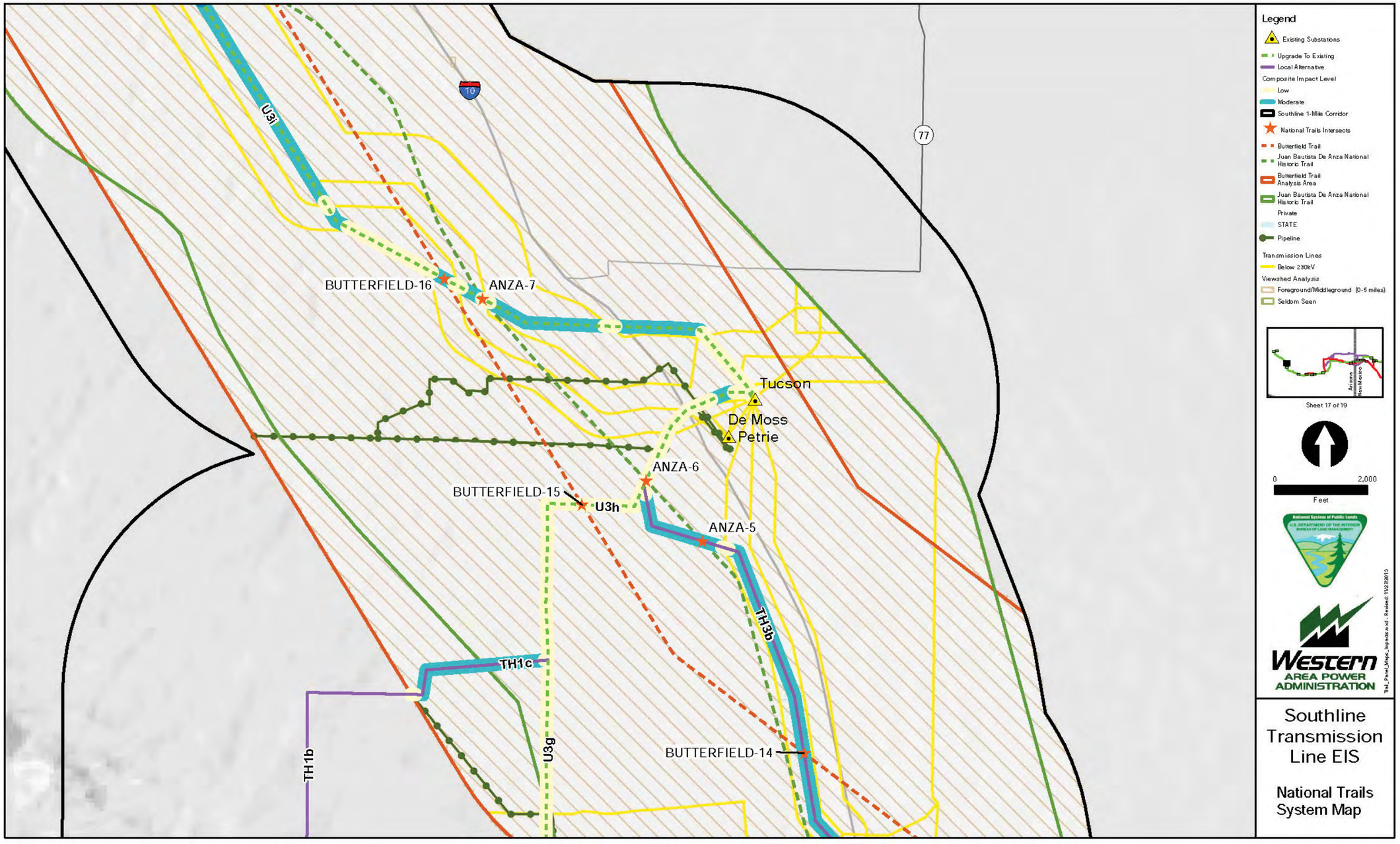


Figure F-59. Composite impact assessment results (Panel 18).

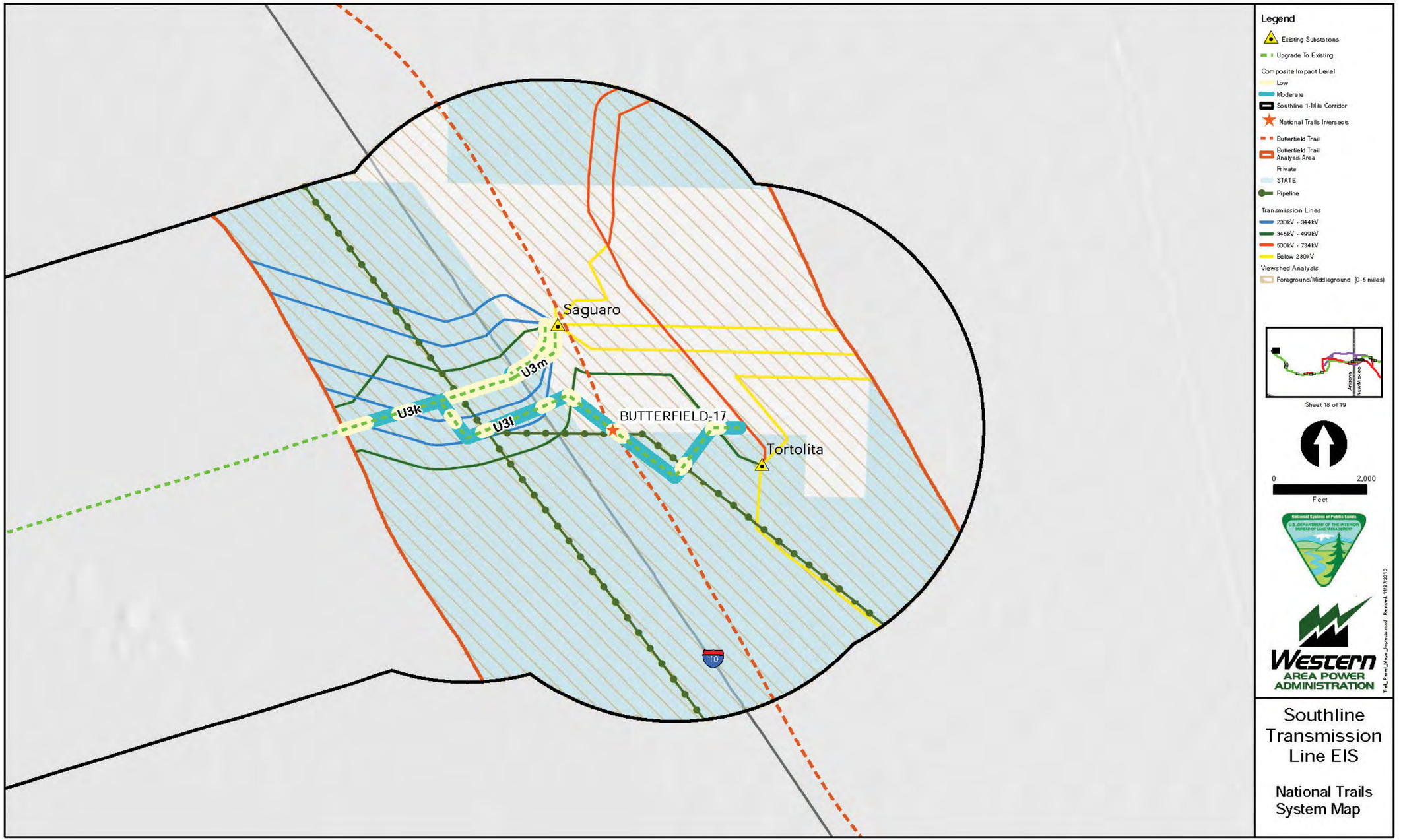
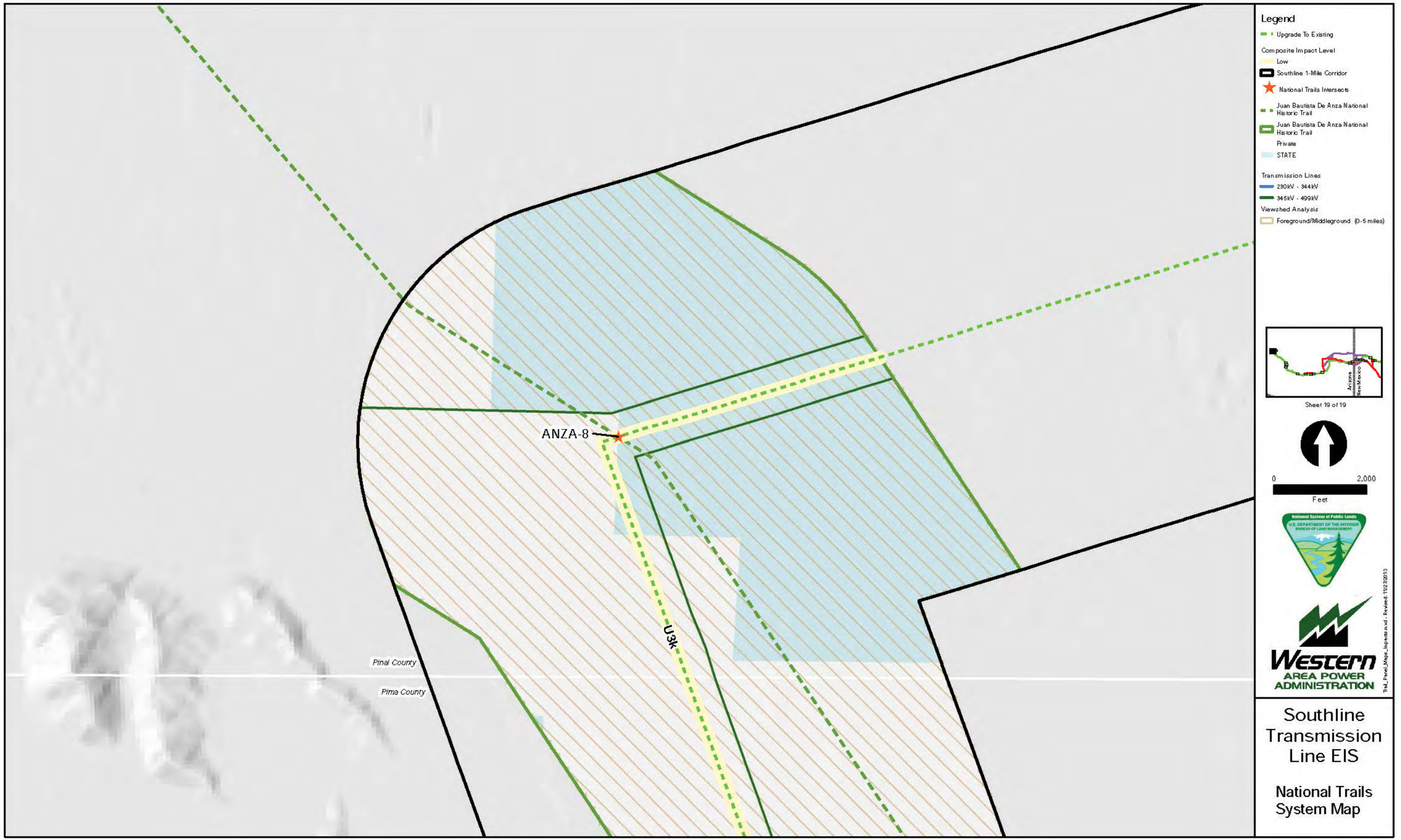


Figure F-60. Composite impact assessment results (Panel 19).



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Appendix G

CULTURAL RESOURCES WITHIN THE REPRESENTATIVE RIGHT-OF-WAY

Table G-1. Cultural Resources within the Representative Right-of-Way

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
New Build Section														
Route group 1	A	None	Limited Activity	Historic	Fence	Euro-American	Unknown	1	Unevaluated -- Mapped Resource					WRI-M-1463
Route group 1	A	None	Limited Activity	Historic	Fence	Euro-American	Unknown	1	Unevaluated -- Mapped Resource					WRI-M-1841
Route group 1	A	None	Limited Activity	Historic	Fence	Euro-American	Unknown	1	Unevaluated -- Mapped Resource					WRI-M-1844
Route group 1	A	None	Limited Activity	Historic	Fence	Euro-American	Unknown	1	Unevaluated -- Mapped Resource					WRI-M-1846
Route group 1	A	LA 35136	Limited Activity	Prehistoric	artifact scatter	Folsom; Mogollon	9000–8000 B.C.; A.D. 200–1100	1	Unevaluated					WRI-S-1670
Route group 1	A	LA 79551	Limited Activity	Prehistoric	artifact scatter	Mogollon	Unspecific Jornada Mogollon	1	Determined Eligible	Not Entered	SHPO	Not Entered	Not Entered	WRI-S-1831
Route group 1	A	LA 21134	Limited Activity	Prehistoric	Artifact scatter with Feature	Mogollon	Late Pueblo (Jornada) A.D. 1300–1400	1	Unevaluated		SHPO	38627	1/26/1993	WRI-S-1656
Route group 1	A	LA 35135	Limited Activity	Prehistoric	artifact scatter with Feature	Mogollon (Jornada)	Early Pueblo A.D. 1100– Late Pueblo A.D. 1400	1	Unevaluated					WRI-S-1669
Route group 1	A	LA 35137	Limited Activity	Unknown	artifact scatter with Feature	Unknown	Unknown 9500 B.C.–A.D. 1993	1	Unevaluated					WRI-S-1671
Route group 1	A	None	Ranching	Historic	Ranch	Euro-American	Unknown	1	Unevaluated -- Mapped Resource					WRI-M-1381
Route group 1	A	None	Structure	Historic	Structure	Euro-American	Unknown	1	Unevaluated -- Mapped Resource					WRI-M-1284
Route group 1	A	None	Town	Historic	Town	Euro-American	Unknown	1	Unevaluated -- Mapped Resource					WRI-M-1384
Route group 1	A	LA 69483	Transportation	Historic	Historic Railroad Worker Camp	Euro-American	1900–1910	1	Unknown					WRI-S-1815
Route group 1	A	None	Transportation	Historic	Road	Euro-American	Unknown	1	Unevaluated -- Mapped Resource					WRI-M-1532
Route group 1	A	None	Transportation	Historic	Road	Euro-American	Unknown	1	Unevaluated -- Mapped Resource					WRI-M-1535
Route group 1	A	None	Transportation	Historic	Road	Euro-American	Unknown	1	Unevaluated -- Mapped Resource					WRI-M-1538
Route group 1	A	None	Transportation	Historic	Road	Euro-American	Unknown	1	Unevaluated -- Mapped Resource					WRI-M-1552
Route group 1	A	None	Transportation	Historic	Road	Euro-American	Unknown	1	Unevaluated -- Mapped Resource					WRI-M-1719
Route group 1	A	None	Transportation	Historic	Road	Euro-American	Unknown	1	Unevaluated -- Mapped Resource					WRI-M-1838
Route group 1	A	None	Transportation	Historic	Road	Euro-American	Unknown	1	Unevaluated -- Mapped Resource					WRI-M-1839
Route group 1	A	None	Transportation	Historic	Road	Euro-American	Unknown	1	Unevaluated -- Mapped Resource					WRI-M-1840
Route group 1	A	None	Transportation	Historic	Road	Euro-American	Unknown	1	Unevaluated -- Mapped Resource					WRI-M-1842
Route group 1	A	None	Transportation	Historic	Road	Euro-American	Unknown	1	Unevaluated -- Mapped Resource					WRI-M-1845

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 1	B	LA 54881	Industrial	Historic	Altair Siding, El Paso & Swern RR Altair, Southern RR Siding	Euro-American	US Territorial 1902–1961	1	Unevaluated					WRI-S-1765
Route group 1	B	LA 54880	Industrial	Historic	Railroad Section Station	Euro-American	US Territorial 1902–1961	1	Determined Eligible	D	SHPO	67326	2/18/2006	WRI-S-1764
Route group 1	B	LA 54893	Limited Activity	Multi	artifact scatter with Feature	Native Archaeological Culture	Unspecific 9500 B.C.–A.D. 1880	1	Unevaluated					WRI-S-1769
Route group 1	B	None	Town	Historic	Town			1	Unevaluated -- Mapped Resource					WRI-M-1385
Route group 1	B	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1553
Route group 1	B	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1555
Route group 1	B	LA 159468	Unknown	Historic	Unknown	Unknown	Unknown	1	Determined Eligible					WRI-S-1581
Route group 1	B	LA 159826	Unknown	Multi	Unknown	Unknown	Unknown	1	Unknown					WRI-S-1586
Route group 1	B	LA 159826	Unknown	Multi	Unknown	Unknown	Unknown	1	Unknown					WRI-S-1586
Route group 1	C	LA 54905	Limited Activity	Prehistoric	artifact scatter	Archaic	Unspecific Archaic 5500 B.C.–A.D. 900	1	Unevaluated		SHPO			WRI-S-1772
Route group 1	C	None	Ranching	Historic	Ranch	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-1409
Route group 1	C	None	Town	Historic	Town	Euro-American		6	Unevaluated -- Mapped Resource					WRI-M-1410
Route group 1	C	LA 5197	Town	Historic	Town and Mining Site: Town of Hermanas	Euro-American	NM Statehood 1917–1960	1	Determined Eligible	D	SHPO	67326	2/18/2006	WRI-S-1758
Route group 1	C	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-1553
Route group 1	C	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-1600
Route group 1	C	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-1614
Route group 1	C	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-1622
Route group 1	C	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-1625
Route group 1	C	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-1627
Route group 1	C	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-1903
Route group 1	C	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-1904
Route group 1	C	Janos Copper Road	Transportation	Historic	Trail	Euro-American	Unspecified	1	Unevaluated -- Mapped Resource					WRI-M-3707
Route group 1	D	Shakespeare Ghost Town	Habitation	Historic	habitation	Unknown		1	Listed on State and/or Federal Register					WRI-R-3540
Route group 1	D	None	Industrial	Historic	Railroad feature	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-1662
Route group 1	D	None	Industrial	Historic	Railroad feature	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-1673

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 1	D	None	Industrial	Historic	Railroad feature	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-1695
Route group 1	D	None	Industrial	Historic	Railroad feature	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-1795
Route group 1	D	None	Industrial	Historic	Railroad feature	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-1804
Route group 1	D	LA 99968	Limited Activity	Historic	artifact scatter	Euro-American	US Territorial	1	Determined Not Eligible		SHPO	56257	10/30/1998	WRI-S-1850
Route group 1	D	None	Limited Activity	Historic	Fence	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-2184
Route group 1	D	LA 99967	Limited Activity	Historic	Unknown	Euro-American	Unspecified	1	Determined Not Eligible		SHPO	41338	9/9/1993	WRI-S-1849
Route group 1	D	LA 68966	Mining	Historic	Mining	Euro-American	1900–1950	1	Unevaluated					WRI-S-1813
Route group 1	D	None	Mining	Historic	Mining feature	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-2053
Route group 1	D	None	Town	Historic	Town	Multi		26	Unevaluated -- Mapped Resource					WRI-M-1432
Route group 1	D	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-1675
Route group 1	D	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-1676
Route group 1	D	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-1677
Route group 1	D	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-1687
Route group 1	D	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-1692
Route group 1	D	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-1693
Route group 1	D	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-1697
Route group 1	D	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-1698
Route group 1	D	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-1701
Route group 1	D	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-1702
Route group 1	D	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-1764
Route group 1	D	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-1777
Route group 1	D	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-1803
Route group 1	D	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-1805
Route group 1	D	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-1990

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 1	D	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-1991
Route group 1	D	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-1993
Route group 1	D	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-2091
Route group 1	D	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-2198
Route group 1	D	Continental Divide	Transportation	Historic	Trail	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-2231
Route group 1	D	None	Utility	Historic	Telegraph line	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-2012
Route group 1	D	None	Utility	Historic	Utility line	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-2185
Route group 1	D	LA 129785	Utility	Historic	Utility line	Euro-American	Recent 1948–Present	1	Unevaluated		SHPO	92156	6/6/2011	WRI-S-1498
Route group 1	DN1	LA 19091	Unknown	Prehistoric	Unknown	Unknown	Unknown	1	Unknown					None
Route group 1	DN1	LA 19096	Unknown	Unknown	Unknown	Unknown	Unknown	1	Unknown					None
Route group 1	DN1	LA 69609	Unknown	Unknown	Unknown	Unknown	Unknown	1	Unknown					None
Route group 1	DN1	LA 98750	Limited Activity	Prehistoric	Artifact scatter	Mogollon	Unknown	1	Unevaluated					None
Route group 1	DN1	None	Transportation	Historic	Railroad feature	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-1581
Route group 1	DN1	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-1582
Route group 1	DN1	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-2205
Route group 1	DN1	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-2206
Route group 1	DN1	None	Transportation	Historic	Trail	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-3705
Route group 1	DN1	None	Transportation	Historic	Trail	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-3707
Route group 1	DN1	None	Limited Activity	Historic	Fence	Euro-American		1	Unevaluated -- Mapped Resource					None
Route group 1	DN1	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					None
Route group 1	DN1	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					None
Route group 1	DN1	None	Limited Activity	Historic	Fence	Euro-American		1	Unevaluated -- Mapped Resource					None
Route group 1	DN1	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					None
Route group 1	DN1	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					None
Route group 1	DN1	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					None
Route group 1	DN1	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					None

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 1	DN1	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					None
Route group 1	DN1	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					None
Route group 1	DN1	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					None
Route group 1	DN1	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					None
Route group 1	DN1	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					
Route group 1	DN1	None	Transportation	Historic	Railroad Feature	Euro-American		1	Unevaluated -- Mapped Resource					None
Route group 1	DN1	None	Transportation	Historic	Railroad Feature	Euro-American		1	Unevaluated -- Mapped Resource					None
Route group 1	DN1	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					None
Route group 1	DN1	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					None
Route group 1	DN1	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					None
Route group 1	DN1	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					None
Route group 1	DN1	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					None
Route group 1	DN1	None	Limited Activity	Historic	Tank	Euro-American		1	Unevaluated -- Mapped Resource					None
Route group 1	P1	None	Industrial	Historic	Pumping Station			1	Unevaluated -- Mapped Resource					WRI-M-2213
Route group 1	P1	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-1822
Route group 1	P1	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1516
Route group 1	P1	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1820
Route group 1	P1	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1821
Route group 1	P3	None	Industrial	Historic	Railroad feature			1	Unevaluated -- Mapped Resource					WRI-M-1529
Route group 1	P3	None	Industrial	Historic	Railroad feature			1	Unevaluated -- Mapped Resource					WRI-M-1556
Route group 1	P3	LA 16473	Limited Activity	Multi	artifact scatter	Unknown	Unknown 9500 B.C.–A.D. 1993	1	Unevaluated					WRI-S-1614
Route group 1	P3	LA 32772	Limited Activity	Prehistoric	artifact scatter	Mogollon	Unspecific Mimbres A.D. 200–1400	1	Unevaluated					WRI-S-1661
Route group 1	P3	LA 32773	Limited Activity	Prehistoric	artifact scatter	Mogollon (Mimbres)	Unspecific A.D. 200–1400	1	Unevaluated					WRI-S-1662

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 1	P3	LA 35198	Limited Activity	Prehistoric	artifact scatter	Mogollon	A.D. 200–1400	1	Unevaluated					WRI-S-1697
Route group 1	P3	LA 16475	Limited Activity	Prehistoric	artifact scatter with Feature	Mogollon	Unspecific Mimbres A.D. 200–1400	1	Unevaluated					WRI-S-1616
Route group 1	P3	LA 16477	Limited Activity	Prehistoric	artifact scatter with Feature	Mogollon	Unspecific Mimbres A.D. 200–1400	1	Unevaluated					WRI-S-1618
Route group 1	P3	LA 35199	Limited Activity	Unknown	artifact scatter	Unknown	Unknown 9500 B.C.–A.D. 1993	1	Unevaluated					WRI-S-1698
Route group 1	P3	None	Mining	Historic	Mining feature			1	Unevaluated -- Mapped Resource					WRI-M-1865
Route group 1	P3	None	Mining	Historic	Mining feature			1	Unevaluated -- Mapped Resource					WRI-M-1866
Route group 1	P3	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1545
Route group 1	P3	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1553
Route group 1	P3	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1557
Route group 1	P3	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1558
Route group 1	P3	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1560
Route group 1	P3	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1561
Route group 1	P3	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1934
Route group 1	P3	LA 159471	Transportation	Historic	Unknown	Unknown	Unknown	1	Unknown					WRI-S-1584
Route group 1	P3	None	Utility	Historic	Gas line			1	Unevaluated -- Mapped Resource					WRI-M-1935
Route group 1	P3	LA 129785	Utility	Historic	Utility Line	Euro-American	Recent 1948–Present	1	Unevaluated		SHPO	92156	6/6/2011	WRI-S-1498
Route group 1	P1	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1821
Route group 1	P2	None	Industrial	Historic	Railroad feature			1	Unevaluated -- Mapped Resource					WRI-M-1581
Route group 1	P2	None	Industrial	Historic	Railroad feature			1	Unevaluated -- Mapped Resource					WRI-M-1591
Route group 1	P2	LA 152956	Limited Activity	Historic	artifact scatter	Euro-American	NM Territorial–Recent 1900–1950	1	Determined Not Eligible		SHPO	79032	9/7/2006	WRI-S-1564
Route group 1	P2	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-1461
Route group 1	P2	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-1485
Route group 1	P2	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-1823
Route group 1	P2	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-1828
Route group 1	P2	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-1953

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 1	P2	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-1955
Route group 1	P2	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-1957
Route group 1	P2	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-1969
Route group 1	P2	LA 15324	Limited Activity	Historic	Historic Trash	Euro-American	Unspecific A.D. 1539–Present	1	Unevaluated		SHPO	16740	11/11/1988	WRI-S-1565
Route group 1	P2	LA 15327	Limited Activity	Historic	Historic Trash	Unknown	Unspecific 1912–1945	1	Unevaluated					WRI-S-1568
Route group 1	P2	LA 12788	Limited Activity	Multi	artifact scatter	Casas Grandes, Euro-American	Unspecific Casas Grandes A.D. 600–1400, US Territorial 1846–1912	1	Unknown					WRI-S-1476
Route group 1	P2	LA 136070	Limited Activity	Multi	Fire Cracked Rock Concentration (3)	Native Archaeological Culture	Unspecific 9500 B.C.–A.D. 1880	1	Unevaluated		SHPO	65144	6/18/2002	WRI-S-1526
Route group 1	P2	LA 12782	Limited Activity	Prehistoric	artifact scatter	Mogollon	Mimbres A.D. 200–1400	1	Unknown					WRI-S-1470
Route group 1	P2	LA 12786	Limited Activity	Prehistoric	artifact scatter	Mogollon	Mimbres A.D. 200–1400	1	Unknown					WRI-S-1474
Route group 1	P2	LA 15330	Limited Activity	Prehistoric	artifact scatter	Archaic; Mogollon	Middle/Late Archaic 3000 B.C.–A.D. 900, Jornada A.D. 200–1400	1	Unevaluated					WRI-S-1571
Route group 1	P2	LA 12784	Limited Activity	Unknown	artifact scatter	unknown	Unknown 9500 B.C.–A.D. 1993	1	Unknown					WRI-S-1472
Route group 1	P2	None	Mining	Historic	Mining feature			1	Unevaluated -- Mapped Resource					WRI-M-1927
Route group 1	P2	None	Ranching	Historic	Ranch			4	Unevaluated -- Mapped Resource					WRI-M-1486
Route group 1	P2	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-1330
Route group 1	P2	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-1355
Route group 1	P2	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-1356
Route group 1	P2	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-1357
Route group 1	P2	None	Town	Historic	Town			6	Unevaluated -- Mapped Resource					WRI-M-1481
Route group 1	P2	None	Town	Historic	Town			10	Unevaluated -- Mapped Resource					WRI-M-1482
Route group 1	P2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1513
Route group 1	P2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1515
Route group 1	P2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1517
Route group 1	P2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1541
Route group 1	P2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1542

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 1	P2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1547
Route group 1	P2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1548
Route group 1	P2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1576
Route group 1	P2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1577
Route group 1	P2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1582
Route group 1	P2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1583
Route group 1	P2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1584
Route group 1	P2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1585
Route group 1	P2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1586
Route group 1	P2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1589
Route group 1	P2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1590
Route group 1	P2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1593
Route group 1	P2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1827
Route group 1	P2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1830
Route group 1	P2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1928
Route group 1	P2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1930
Route group 1	P2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1931
Route group 1	P2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1936
Route group 1	P2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1937
Route group 1	P2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1948
Route group 1	P2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1959
Route group 1	P2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1960
Route group 1	P2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1961
Route group 1	P2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1968

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 1	P2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1972
Route group 1	P2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1976
Route group 1	P2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1980
Route group 1	P2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2205
Route group 1	P2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2206
Route group 1	P2	Janos Copper Road	Transportation	Historic	Trail	Euro-American	Unspecified	1	Unevaluated -- Mapped Resource					WRI-M-3707
Route group 1	S1	None	Industrial	Historic	Railroad feature			1	Unevaluated -- Mapped Resource					WRI-M-1529
Route group 1	S1	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-1831
Route group 1	S1	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-1833
Route group 1	S1	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-1835
Route group 1	S1	LA 65461	Limited Activity	Prehistoric	artifact scatter	Native Archaeological Culture	ceramic A.D. 200–1400	1	Unevaluated					WRI-S-1796
Route group 1	S1	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1513
Route group 1	S1	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1519
Route group 1	S1	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1522
Route group 1	S1	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1524
Route group 1	S1	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1525
Route group 1	S1	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1527
Route group 1	S1	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1528
Route group 1	S1	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1530
Route group 1	S1	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1531
Route group 1	S1	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1532
Route group 1	S1	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1821
Route group 1	S1	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1832
Route group 1	S1	LA 129785	Utility	Historic	Utility Line	Euro-American	Recent 1948–Present	1	Unevaluated		SHPO	92156	6/6/2011	WRI-S-1498

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 1	S1	None	Water Control Features	Historic	Canal			1	Unevaluated -- Mapped Resource					WRI-M-1533
Route group 1	S2	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-1463
Route group 1	S2	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-1841
Route group 1	S2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1532
Route group 1	S2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1536
Route group 1	S2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1538
Route group 1	S2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1552
Route group 1	S2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1554
Route group 1	S2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1720
Route group 1	S3	LA 54878	Industrial	Historic	El Paso and Southwestern Railroad, Mt. Riley Station	Euro-American	US Territorial 1902–1961	1	Determined Eligible	D	SHPO	67326	2/18/2006	WRI-S-1762
Route group 1	S3	None	Industrial	Historic	Railroad feature			1	Unevaluated -- Mapped Resource					WRI-M-1556
Route group 1	S3	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-1851
Route group 1	S3	None	Town	Historic	Town			2	Unevaluated -- Mapped Resource					WRI-M-1382
Route group 1	S3	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1553
Route group 1	S3	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1725
Route group 1	S3	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1729
Route group 1	S4	None	Ranching	Historic	Ranch			1	Unevaluated -- Mapped Resource					WRI-M-1386
Route group 1	S4	None	Town	Historic	Town			1	Unevaluated -- Mapped Resource					WRI-M-1385
Route group 1	S4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1553
Route group 1	S4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1555
Route group 1	S4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1852
Route group 1	S5	LA 162363	Habitation	Historic	artifact scatter with Feature - Charles E. Bourgeois Homestead	Euro-American	Statehood 1914–Present	1	Unknown		SHPO	87483	8/19/2009	WRI-S-1596
Route group 1	S5	LA 54883	Industrial	Historic	Miriam Railroad Siding	Euro-American	US Territorial 1902–1961	1	Determined Eligible	D	SHPO	67326	2/18/2006	WRI-S-1767

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 1	S5	None	Industrial	Historic	Railroad feature			1	Unevaluated -- Mapped Resource					WRI-M-1880
Route group 1	S5	LA 54882	Industrial	Historic	Railroad Stations	Euro-American	US Territorial 1902–1961	1	Determined Eligible	D	SHPO	67326	2/18/2006	WRI-S-1766
Route group 1	S5	LA 131904	Limited Activity	Historic	artifact scatter	Euro-American	1920–1939	1	Unknown					WRI-S-1508
Route group 1	S5	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-1867
Route group 1	S5	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-1868
Route group 1	S5	LA 50346	Limited Activity	Historic	Trash Dump	Hispanic	NM Statehood 1912–1945	1	Unevaluated					WRI-S-1747
Route group 1	S5	LA 54894	Limited Activity	Prehistoric	artifact scatter	Mogollon	Early Pueblo A.D. 1000–Late Pueblo A.D. 1400	1	Unevaluated					WRI-S-1770
Route group 1	S5	LA 35231	Limited Activity	Unknown	artifact scatter	Unknown	Unknown 9500 B.C.–A.D. 1993	1	Unevaluated					WRI-S-1712
Route group 1	S5	None	Ranching	Historic	Ranch			1	Unevaluated -- Mapped Resource					WRI-M-1409
Route group 1	S5	LA 162362	Ranching	Historic	Ranching / Agricultural	Euro-American	NM Statehood 1935–Present	1	Unknown		SHPO	87483	8/19/2009	WRI-S-1595
Route group 1	S5	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-1467
Route group 1	S5	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-1468
Route group 1	S5	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-1475
Route group 1	S5	None	Town	Historic	Town			7	Unevaluated -- Mapped Resource					WRI-M-1394
Route group 1	S5	None	Town	Historic	Town			1	Unevaluated -- Mapped Resource					WRI-M-1407
Route group 1	S5	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1553
Route group 1	S5	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1566
Route group 1	S5	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1568
Route group 1	S5	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1569
Route group 1	S5	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1570
Route group 1	S5	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1573
Route group 1	S5	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1599
Route group 1	S5	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1879
Route group 1	S5	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1881

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 1	S5	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1883
Route group 1	S5	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2092
Route group 1	S5	LA 158431	Unknown	Historic	Unknown	Unknown	Unknown	1	Unknown					WRI-S-1577
Route group 1	S5	LA 76114	Unknown	Historic	Unknown	Unknown	1500–1950	1	Determined Eligible	D	SHPO	NA	2/18/2006	WRI-S-1822
Route group 1	S6	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-1907
Route group 1	S6	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-1908
Route group 1	S6	None	Ranching	Historic	Ranch			1	Unevaluated -- Mapped Resource					WRI-M-1409
Route group 1	S6	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1553
Route group 1	S6	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1600
Route group 1	S6	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1608
Route group 1	S6	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1609
Route group 1	S6	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1611
Route group 1	S6	Janos Copper Road	Transportation	Historic	Trail	Euro-American	Unspecified	1	Unevaluated -- Mapped Resource					WRI-M-3707
Route group 1	S7	None	Industrial	Historic	Railroad feature			1	Unevaluated -- Mapped Resource					WRI-M-1623
Route group 1	S7	None	Industrial	Historic	Railroad feature			1	Unevaluated -- Mapped Resource					WRI-M-1662
Route group 1	S7	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-1909
Route group 1	S7	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-1913
Route group 1	S7	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-1918
Route group 1	S7	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-1921
Route group 1	S7	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-1924
Route group 1	S7	None	Ranching	Historic	Ranch			3	Unevaluated -- Mapped Resource					WRI-M-1496
Route group 1	S7	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-1369
Route group 1	S7	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-1490
Route group 1	S7	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-1500
Route group 1	S7	None	Town	Historic	Town			1	Unevaluated -- Mapped Resource					WRI-M-1415

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 1	S7	None	Town	Historic	Town			1	Unevaluated -- Mapped Resource					WRI-M-1418
Route group 1	S7	None	Town	Historic	Town			2	Unevaluated -- Mapped Resource					WRI-M-1419
Route group 1	S7	None	Town	Historic	Town			100	Unevaluated -- Mapped Resource					WRI-M-1426
Route group 1	S7	LA 44811	Town	Historic	Victorio Siding, Victorio Station	Euro-American	US Territorial 1901–NM Statehood 1935	1	Determined Eligible	D	SHPO	40038	5/18/1993	WRI-S-1737
Route group 1	S7	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1626
Route group 1	S7	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1631
Route group 1	S7	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1633
Route group 1	S7	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1634
Route group 1	S7	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1640
Route group 1	S7	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1642
Route group 1	S7	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1643
Route group 1	S7	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1659
Route group 1	S7	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1665
Route group 1	S7	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1667
Route group 1	S7	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1758
Route group 1	S7	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1906
Route group 1	S7	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1917
Route group 1	S7	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1922
Route group 1	S7	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2016
Route group 1	S7	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2020
Route group 1	S7	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2025
Route group 1	S7	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2029
Route group 1	S7	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2033
Route group 1	S7	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2034

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 1	S7	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2037
Route group 1	S7	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2038
Route group 1	S7	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2091
Route group 1	S7	Crooke's Wagon Road/Mormon Battalion Trail	Transportation	Historic	Trail	Euro-American	Unspecified	1	Unevaluated -- Mapped Resource					WRI-M-3705
Route group 1	S7	LA 160635	Unknown	Historic	Unknown	Unknown	Unknown	1	Unknown					WRI-S-1589
Route group 1	S7	LA 160636	Unknown	Historic	Unknown	Unknown	Unknown	1	Unknown					WRI-S-1590
Route group 1	S7	LA 160637	Unknown	Historic	Unknown	Unknown	Unknown	1	Determined Not Eligible					WRI-S-1591
Route group 1	S7	None	Utility	Historic	Pipeline			1	Unevaluated -- Mapped Resource					WRI-M-2229
Route group 1	S7	None	Utility	Historic	Telegraph line			1	Unevaluated -- Mapped Resource					WRI-M-2012
Route group 1	S8	None	Industrial	Historic	Railroad feature			1	Unevaluated -- Mapped Resource					WRI-M-1662
Route group 1	S8	None	Industrial	Historic	Railroad feature			1	Unevaluated -- Mapped Resource					WRI-M-1984
Route group 1	S8	LA 134502	Limited Activity	Prehistoric	artifact scatter	Mogollon	Late Pithouse to Early Pithouse–Mimbres A.D. 600–1200	1	Determined Eligible	D	SHPO	64776	6/17/2002	WRI-S-1518
Route group 1	S8	LA 134503	Limited Activity	Prehistoric	artifact scatter	Mogollon	Unspecific Mimbres Mogollon A.D. 200–1400	1	Determined Not Eligible		SHPO	64776	6/12/2002	WRI-S-1519
Route group 1	S8	LA 131194	Transportation	Historic	Old SR 70/80 roadbed	Euro-American	Late Historic 1920–1945	1	Determined Not Eligible		SHPO	78825	8/15/2006	WRI-S-1507
Route group 1	S8	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1981
Route group 1	S8	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1982
Route group 1	S8	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1983
Route group 1	S8	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2091
Route group 1	S8	Butterfield Trail	Transportation	Historic	Trail	Euro-American	Unspecified	1	Determined Eligible		SHPO	173	8/13/1970	WRI-R-3541
Route group 1	S8	None	Utility	Historic	Pipeline			1	Unevaluated -- Mapped Resource					WRI-M-2224
Route group 1	S8	None	Utility	Historic	Pipeline			1	Unevaluated -- Mapped Resource					WRI-M-2225
Route group 1	S8	None	Utility	Historic	Telegraph line			1	Unevaluated -- Mapped Resource					WRI-M-1985
Route group 1	S8	None	Utility	Historic	Telegraph line			1	Unevaluated -- Mapped Resource					WRI-M-2012
Route group 1	S8	LA 129785	Utility	Historic	Utility Line	Euro-American	Recent 1948–Present	1	Unevaluated		SHPO	92156	6/6/2011	WRI-S-1498

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 2	LD1	None	Industrial	Historic	Railroad feature	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-1804
Route group 2	LD1	LA 129570	Limited Activity	Historic	artifact scatter	Euro-American	Anglo	1	Determined Eligible	D	SHPO	60125	9/7/2000	WRI-S-3704
Route group 2	LD1	LA 56186	Limited Activity	Prehistoric	artifact scatter	Native American	Unknown	1	Unevaluated					WRI-S-3728
Route group 2	LD1	LA 140121	Mining	Historic	Habitation	Euro-American	Anglo	1	Unevaluated					WRI-S-3703
Route group 2	LD1	None	Mining	Historic	Mining feature			1	Unevaluated -- Mapped Resource					WRI-M-2053
Route group 2	LD1	None	Other	Historic	Compound			5	Unevaluated -- Mapped Resource					WRI-M-4701
Route group 2	LD1	None	Other	Historic	Compound			10	Unevaluated -- Mapped Resource					WRI-M-4702
Route group 2	LD1	None	Other	Historic	Compound			3	Unevaluated -- Mapped Resource					WRI-M-4703
Route group 2	LD1	None	Other	Historic	Compound			20	Unevaluated -- Mapped Resource					WRI-M-4705
Route group 2	LD1	None	Other	Historic	Compound			4	Unevaluated -- Mapped Resource					WRI-M-4706
Route group 2	LD1	None	Other	Historic	Compound			2	Unevaluated -- Mapped Resource					WRI-M-4707
Route group 2	LD1	None	Other	Historic	Ditch			1	Unevaluated -- Mapped Resource					WRI-M-3740
Route group 2	LD1	None	Other	Historic	Tank			1	Unevaluated -- Mapped Resource					WRI-M-4461
Route group 2	LD1	None	Other	Historic	Tank			1	Unevaluated -- Mapped Resource					WRI-M-4463
Route group 2	LD1	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-4481
Route group 2	LD1	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0011
Route group 2	LD1	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0012
Route group 2	LD1	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0014
Route group 2	LD1	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0023
Route group 2	LD1	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0028
Route group 2	LD1	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0029
Route group 2	LD1	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0030
Route group 2	LD1	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0031
Route group 2	LD1	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0270
Route group 2	LD1	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1805

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 2	LD1	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-3718
Route group 2	LD1	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-3726
Route group 2	LD1	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-3742
Route group 2	LD1	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-3744
Route group 2	LD1	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-3769
Route group 2	LD1	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-3770
Route group 2	LD1	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-3771
Route group 2	LD1	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-3772
Route group 2	LD1	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-3800
Route group 2	LD1	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-3841
Route group 2	LD1	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-3844
Route group 2	LD1	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-3848
Route group 2	LD1	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-3849
Route group 2	LD1	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-3850
Route group 2	LD1	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-3860
Route group 2	LD1	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-3890
Route group 2	LD1	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-3896
Route group 2	LD1	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-3902
Route group 2	LD1	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-3911
Route group 2	LD1	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4336
Route group 2	LD1	AZ CC:11:70(ASM)	Transportation	Historic	Road	Non Native Culture	Late Historic 1900–1950	1	Unevaluated					WRI-S-1325
Route group 2	LD1	AZ CC:12:50(ASM)	Transportation	Historic	Road (Historic West Sellars Ranch Road)	Euro-American	Post A.D.1700 Historic A.D.1700–1950	1	Unevaluated					WRI-S-1339
Route group 2	LD1	AZ CC:12:51(ASM)	Transportation	Historic	Road (Historic Wood Canyon Road)	Euro-American	Post A.D.1700 Historic A.D.1700–1950	1	Unevaluated					WRI-S-1340
Route group 2	LD1	AZ CC:16:22(ASM)	Transportation	Historic	Road (Portal Road)	Euro-American	1932	1	Unevaluated					WRI-S-1394
Route group 2	LD1	None	Transportation	Historic	Stage route			1	Unevaluated -- Mapped Resource					WRI-M-0600

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 2	LD1	Butterfield Trail	Transportation	Historic	Trail	Euro-American	Unspecified	1	Determined Eligible		SHPO	173	8/13/1970	WRI-R-3541
Route group 2	LD1	AZ CC:16:26(ASM)	Transportation	Historic	Vanar Road	Euro-American	Prior to 1914	1	Unevaluated					WRI-S-3783
Route group 2	LD1	LA 149311	Unknown	Unknown	unknown	Unknown	Unknown	1	Unevaluated					WRI-S-3717
Route group 2	LD1	AZ T:9:85(ASM)	Utility	Historic	AT&T transcontinental communication cable	Euro-American	1900–1950		Unevaluated					WRI-S-3782
Route group 2	LD1	AZ CC:16:16(ASM)	Utility	Historic	telephone line	Euro-American	1900–1950		Unevaluated					WRI-S-3777
Route group 2	LD1	None	Utility	Historic	Utility line			1	Unevaluated -- Mapped Resource					WRI-M-3746
Route group 2	LD1	None	Utility	Historic	Utility line			1	Unevaluated -- Mapped Resource					WRI-M-4337
Route group 2	LD1	LA 129785	Utility	Historic	Utility Line	Euro-American	Recent 1948–Present	1	Unevaluated		SHPO	92156	6/6/2011	WRI-S-1498
Route group 2	LD1	None	Water Control Features	Historic	Levee			1	Unevaluated -- Mapped Resource					WRI-M-3861
Route group 2	LD2	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-2055
Route group 2	LD2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-3709
Route group 2	LD2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-3714
Route group 2	LD2	Butterfield Trail	Transportation	Historic	Trail	Euro-American	Unspecified	1	Determined Eligible		SHPO	173	8/13/1970	WRI-R-3541
Route group 2	LD3a	LA 12780	Habitation	Prehistoric	Habitation	Native American	Mogollon	1	Unevaluated					WRI-S-3722
Route group 2	LD3a	None	Industrial	Historic	Railroad feature			1	Unevaluated -- Mapped Resource					WRI-M-3788
Route group 2	LD3a	None	Industrial	Historic	Railroad feature			1	Unevaluated -- Mapped Resource					WRI-M-3808
Route group 2	LD3a	LA 12779	Limited Activity	Prehistoric	artifact scatter	Native American	Mogollon	1	Unevaluated					WRI-S-3721
Route group 2	LD3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-3790
Route group 2	LD3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-3794
Route group 2	LD3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-3810
Route group 2	LD3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-3813
Route group 2	LD3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-3814
Route group 2	LD3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-3819
Route group 2	LD3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-3820
Route group 2	LD3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-3823
Route group 2	LD3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-3824
Route group 2	LD3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-3827

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 2	LD3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-3828
Route group 2	LD3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-3833
Route group 2	LD3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-3834
Route group 2	LD3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-3873
Route group 2	LD3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-3875
Route group 2	LD3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-3876
Route group 2	LD3a	Butterfield Trail	Transportation	Historic	Trail	Euro-American	Unspecified	1	Determined Eligible		SHPO	173	8/13/1970	WRI-R-3541
Route group 2	LD3a	None	Utility	Historic	Utility line			1	Unevaluated -- Mapped Resource					WRI-M-3818
Route group 2	P4b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2180
Route group 2	LD3b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2077
Route group 2	LD3b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-3871
Route group 2	LD3b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-3873
Route group 2	LD4	AZ CC:8:7(ASM)	Habitation	Both	Habitation			1	Unevaluated					None
Route group 2	LD4	AZ CC:10:3(ASM)	Limited Activity	Prehistoric	Artifact scatter	Mogollon		1	Unevaluated					None
Route group 2	LD4	AZ CC:10:127(ASM)	Unknown	Unknown	Unknown				Unknown					None
Route group 2	LD4	AZ CC:3:91(ASM)	Transportation	Historic	Road	Euro-American	Historic A.D.1800–1950	1	Determined Eligible					None
Route group 2	LD4	AZ FF:1:33(ASM)	Transportation	Historic	Road	Euro-American	Mid–Late Historic 1800–1950	1	Unevaluated					None
Route group 2	LD4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Transportation	Historic	Trail			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 2	LD4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Other	Historic	Windmill			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Other	Historic	Tank			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Ranching	Historic	Ranch			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Transportation	Historic	Trail			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 2	LD4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Transportation	Historic	Railroad Feature			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Transportation	Historic	Trail			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 2	LD4	None	Limited Activity	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4-Option4	None	Transportation	Historic	Trail			1	Unevaluated -- Mapped Resource					WRI-M-3703
Route group 2	LD4-Option4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0281
Route group 2	LD4-Option4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0670
Route group 2	LD4-Option4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4-Option4	None	Utility	Historic	Telegraph			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4-Option4	None	Transportation	Historic	Railroad feature			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4-Option4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4-Option4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4-Option5	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0117
Route group 2	LD4-Option5	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0281
Route group 2	LD4-Option5	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0664
Route group 2	LD4-Option5	None	Transportation	Historic	Trail			1	Unevaluated -- Mapped Resource					WRI-M-3703
Route group 2	LD4-Option5	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0670
Route group 2	LD4-Option5	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4-Option5	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4-Option5	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4-Option5	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4-Option5	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4-Option5	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4-Option5	None	Limited Activity	Historic	Windmill			1	Unevaluated -- Mapped Resource					None
Route group 2	LD4-Option5	None	Limited Activity	Historic	Tank			1	Unevaluated -- Mapped Resource					None
Route group 2	WC1a	None	Industrial	Historic	Railroad feature			1	Unevaluated -- Mapped Resource					WRI-M-4353

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 2	WC1a	None	Industrial	Historic	Railroad feature			1	Unevaluated -- Mapped Resource					WRI-M-4413
Route group 2	WC1a	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-4244
Route group 2	WC1a	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-4245
Route group 2	WC1a	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-4247
Route group 2	WC1a	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-4251
Route group 2	WC1a	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-4259
Route group 2	WC1a	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-4261
Route group 2	WC1a	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-4266
Route group 2	WC1a	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-4269
Route group 2	WC1a	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-4273
Route group 2	WC1a	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-4275
Route group 2	WC1a	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-4276
Route group 2	WC1a	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-4290
Route group 2	WC1a	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-4294
Route group 2	WC1a	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-4347
Route group 2	WC1a	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-4354
Route group 2	WC1a	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-4356
Route group 2	WC1a	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-4357
Route group 2	WC1a	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-4358
Route group 2	WC1a	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-4360
Route group 2	WC1a	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-4361
Route group 2	WC1a	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-4364
Route group 2	WC1a	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-4367
Route group 2	WC1a	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-4370

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 2	WC1a	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-4389
Route group 2	WC1a	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-4391
Route group 2	WC1a	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-4398
Route group 2	WC1a	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-4402
Route group 2	WC1a	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-4403
Route group 2	WC1a	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-4425
Route group 2	WC1a	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-4428
Route group 2	WC1a	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-4430
Route group 2	WC1a	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-4434
Route group 2	WC1a	None	Other	Historic	Compound			10	Unevaluated -- Mapped Resource					WRI-M-4735
Route group 2	WC1a	None	Other	Historic	Windmill			1	Unevaluated -- Mapped Resource					WRI-M-4853
Route group 2	WC1a	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-1255
Route group 2	WC1a	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-1256
Route group 2	WC1a	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-4847
Route group 2	WC1a	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-4848
Route group 2	WC1a	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-4852
Route group 2	WC1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0716
Route group 2	WC1a	AZ CC:9:5(ASM)	Transportation	Historic	Historic-SPRR Station	Euro-American	Prior to 1900	1	Unevaluated					WRI-S-3745
Route group 2	WC1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0199
Route group 2	WC1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0278
Route group 2	WC1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0280
Route group 2	WC1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0709
Route group 2	WC1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0710
Route group 2	WC1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0716

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 2	WC1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0718
Route group 2	WC1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0719
Route group 2	WC1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4001
Route group 2	WC1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4006
Route group 2	WC1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4009
Route group 2	WC1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4015
Route group 2	WC1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4016
Route group 2	WC1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4018
Route group 2	WC1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4019
Route group 2	WC1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4020
Route group 2	WC1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4137
Route group 2	WC1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4140
Route group 2	WC1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4141
Route group 2	WC1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4142
Route group 2	WC1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4148
Route group 2	WC1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4149
Route group 2	WC1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4151
Route group 2	WC1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4155
Route group 2	WC1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4162
Route group 2	WC1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4171
Route group 2	WC1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4264
Route group 2	WC1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4373
Route group 2	WC1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4374
Route group 2	WC1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4375

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 2	WC1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4392
Route group 2	WC1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4404
Route group 2	WC1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4405
Route group 2	WC1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4406
Route group 2	WC1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4415
Route group 2	WC1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4418
Route group 2	WC1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4421
Route group 2	WC1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4429
Route group 2	WC1a	None	Utility	Historic	Utility line			1	Unevaluated -- Mapped Resource					WRI-M-4355
Route group 2	WC1a	None	Utility	Historic	Utility line			1	Unevaluated -- Mapped Resource					WRI-M-4414
Route group 2	WC1b	None	Ranching	Historic	Ranch			4	Unevaluated -- Mapped Resource					WRI-M-0988
Route group 2	E	None	Industrial	Historic	Airfield	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-1013
Route group 2	E	None	Limited Activity	Historic	Fence	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-2055
Route group 2	E	LA 55764	Limited Activity	Prehistoric	artifact scatter with Feature	Mogollon	Early Pueblo A.D. 1050–1250	1	Unevaluated		SHPO	62627	1/16/2002	WRI-S-1775
Route group 2	E	None	Structure	Historic	Structure	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0773
Route group 2	E	None	Structure	Historic	Structure	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0804
Route group 2	E	None	Structure	Historic	Structure	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0805
Route group 2	E	None	Structure	Historic	Structure	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-1453
Route group 2	E	None	Town	Historic	Town	Euro-American		2	Unevaluated -- Mapped Resource					WRI-M-1030
Route group 2	E	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0002
Route group 2	E	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0003
Route group 2	E	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0006
Route group 2	E	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0008
Route group 2	E	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0018

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 2	E	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0020
Route group 2	E	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0021
Route group 2	E	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0022
Route group 2	E	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0023
Route group 2	E	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0246
Route group 2	E	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0252
Route group 2	E	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0253
Route group 2	E	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0593
Route group 2	E	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0594
Route group 2	E	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0595
Route group 2	E	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0597
Route group 2	E	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0605
Route group 2	E	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-1808
Route group 2	E	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-1810
Route group 2	E	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-1814
Route group 2	E	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-1815
Route group 2	E	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-2059
Route group 2	E	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-2062
Route group 2	E	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-2063
Route group 2	E	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-2074
Route group 2	E	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-2084
Route group 2	E	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-2085
Route group 2	E	None	Transportation	Historic	Stage route	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0600
Route group 2	E	None	Transportation	Historic	Trail	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0235

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 2	E	None	Transportation	Historic	Trail	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0236
Route group 2	E	None	Transportation	Historic	Trail	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0237
Route group 2	E	Butterfield Trail	Transportation	Historic	Trail	Euro-American	Unspecified	1	Determined Eligible		SHPO	173	8/13/1970	WRI-R-3541
Route group 2	F	None	Industrial	Historic	Railroad feature	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0072
Route group 2	F	None	Industrial	Historic	Railroad feature	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0124
Route group 2	F	None	Industrial	Historic	Railroad feature	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0923
Route group 2	F	AZ CC:10:54(ASM)	Limited Activity	Multi	artifact scatter	Mogollon; Historic	Preceramic 12,000 B.C.–A.D. 500; Historic	1	Unevaluated					WRI-S-1288
Route group 2	F	AZ CC:10:104(ASM)	Limited Activity	Prehistoric	artifact scatter	Native Archaeological Culture	Prehistoric 12,000 B.C.–A.D. 1500	1	Unevaluated					WRI-S-1252
Route group 2	F	None	Structure	Historic	Structure	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0900
Route group 2	F	AZ CC:10:103(ASM)	Transportation	Historic	Homestead (Bowie Junction)	Euro-American	Late Historic 1900–1950	1	Unevaluated					WRI-S-1251
Route group 2	F	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0035
Route group 2	F	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0039
Route group 2	F	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0040
Route group 2	F	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0041
Route group 2	F	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0053
Route group 2	F	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0057
Route group 2	F	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0058
Route group 2	F	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0059
Route group 2	F	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0060
Route group 2	F	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0061
Route group 2	F	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0075
Route group 2	F	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0083
Route group 2	F	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0084
Route group 2	F	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0085

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 2	F	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0086
Route group 2	F	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0098
Route group 2	F	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0100
Route group 2	F	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0101
Route group 2	F	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0102
Route group 2	F	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0117
Route group 2	F	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0118
Route group 2	F	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0128
Route group 2	F	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0139
Route group 2	F	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0143
Route group 2	F	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0147
Route group 2	F	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0148
Route group 2	F	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0149
Route group 2	F	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0150
Route group 2	F	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0609
Route group 2	F	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0610
Route group 2	F	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0646
Route group 2	F	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0648
Route group 2	F	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0656
Route group 2	F	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0657
Route group 2	F	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0660
Route group 2	F	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0664
Route group 2	F	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0666
Route group 2	F	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-2095

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 2	F	AZ CC:10:93(ASM)	Transportation	Historic	Road (Safford Interchange)	Euro-American	Late Historic 1900–1950; 1950–Present	1	Unevaluated		SHPO	NA	1/23/2002	WRI-S-1309
Route group 2	F	None	Utility	Historic	Pipeline	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-2219
Route group 2	F	None	Water Control Features	Historic	Dike	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0129
Route group 2	F	None	Water Control Features	Historic	Well	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0911
Route group 2	P6b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0606
Route group 2	Ga	None	Industrial	Historic	Railroad feature	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-2096
Route group 2	Ga	None	Other	Historic	Tank	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-1103
Route group 2	Ga	None	Other	Historic	Tank	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-1154
Route group 2	Ga	None	Other	Historic	Tank	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-1156
Route group 2	Ga	None	Other	Historic	Windmill	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-1097
Route group 2	Ga	None	Ranching	Historic	Ranch	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-2217
Route group 2	Ga	None	Structure	Historic	Structure	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0931
Route group 2	Ga	None	Structure	Historic	Structure	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-1060
Route group 2	Ga	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0200
Route group 2	Ga	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0202
Route group 2	Ga	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0204
Route group 2	Ga	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0284
Route group 2	Ga	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0285
Route group 2	Ga	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0291
Route group 2	Ga	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0297
Route group 2	Ga	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0305
Route group 2	Ga	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0309
Route group 2	Ga	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0310
Route group 2	Ga	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0311

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 2	Ga	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0312
Route group 2	Ga	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0313
Route group 2	Ga	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0315
Route group 2	Ga	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0317
Route group 2	Ga	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0322
Route group 2	Ga	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0331
Route group 2	Ga	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0333
Route group 2	Ga	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0343
Route group 2	Ga	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0664
Route group 2	Ga	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0676
Route group 2	Ga	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0677
Route group 2	Ga	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0718
Route group 2	Ga	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0721
Route group 2	Ga	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0724
Route group 2	Ga	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0725
Route group 2	Ga	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0732
Route group 2	Ga	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0733
Route group 2	Ga	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0734
Route group 2	Ga	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0738
Route group 2	Ga	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0739
Route group 2	Ga	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-2097
Route group 2	Ga	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-2098
Route group 2	Ga	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-2099
Route group 2	Ga	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-2218

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 2	Ga	AZ AA:16:377(ASM)	Transportation	Historic	State Route 86	Euro-American	1900–1950	1	Determined Eligible	A, D	SHPO	NA	10/3/2003	WRI-S-1183
Route group 2	Ga	Zuñiga Route	Transportation	Historic	Trail	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-3703
Route group 2	Ga	None	Water Control Features	Historic	Well	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-1058
Route group 2	Gb	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0713
Route group 2	Gb	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0714
Route group 2	Gb	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0715
Route group 2	Gb	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0720
Route group 2	Gc	None	Cemetery	Historic	Cemetery	Multi		1	Unevaluated -- Mapped Resource					WRI-M-0969
Route group 2	Gc	None	Industrial	Historic	Railroad feature	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0186
Route group 2	Gc	AZ CC:13:3(ASM)	Limited Activity	Prehistoric	artifact scatter	Native Archaeology Culture	Prehistoric 1200 B.C.–A.D. 1500	1	Unknown					WRI-S-1359
Route group 2	Gc	AZ CC:13:5(ASM)	Limited Activity	Prehistoric	artifact scatter with Features	Native Archaeological Culture	Prehistoric 1200 B.C.–A.D. 1500	1	Unknown					WRI-S-1369
Route group 2	Gc	None	Other	Historic	Tank	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0986
Route group 2	Gc	AZ CC:13:45(ASM)	Ranching	Historic	Homestead	Euro-American	Late Historic 1900–1950	1	Determined Eligible	D	SHPO	NA	10/3/2003	WRI-S-1368
Route group 2	Gc	None	Structure	Historic	Structure	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0966
Route group 2	Gc	None	Structure	Historic	Structure	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0967
Route group 2	Gc	None	Town	Historic	Town	Euro-American		34	Unevaluated -- Mapped Resource					WRI-M-0977
Route group 2	Gc	AZ CC:3:91(ASM)	Transportation	Historic	Historic Road (US191, US 71)	Euro-American	Historic 1800–1950	1	Determined Eligible	A, D	SHPO	NA	5/6/2002; 1/8/2004	WRI-S-1395
Route group 2	Gc	AZ FF:1:34(ASM)	Transportation	Historic	Railroad (Arizona & Colorado Railroad Company)	Euro-American	Late Historic 1903	1	Determined Eligible	A,D	SHPO	NA	11/25/2003	WRI-S-1439
Route group 2	Gc	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0188
Route group 2	Gc	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0218
Route group 2	Gc	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0220
Route group 2	Gc	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0705
Route group 2	Gc	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-2099
Route group 2	Gc	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-2100

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 2	P7	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-0959
Route group 2	I	None	Utility	Historic	Pipeline	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-2219
Route group 2	I	None	Utility	Historic	Telegraph line	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0654
Route group 2	I	None	Water Control Features	Historic	Dike	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0877
Route group 2	J	None	Town	Historic	Town	Euro-American		6	Unevaluated -- Mapped Resource					WRI-M-0878
Route group 2	J	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0670
Route group 2	J	None	Utility	Historic	Pipeline	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-2219
Route group 2	E	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-2063
Route group 2	J	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0281
Route group 2	J	None	Utility	Historic	Pipeline	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-2219
Route group 1	P2	LA 18810	Limited Activity	Prehistoric	artifact scatter	Mogollon	Late Pueblo A.D. 1175–1400	1	Unevaluated					WRI-S-1635
Route group 1	P2	LA 35175	Limited Activity	Prehistoric	artifact scatter	Archaic; Mogollon	Archaic 5500 B.C.–A.D. 900; A.D. 200–750	1	Unevaluated					WRI-S-1683
Route group 1	P2	LA 35176	Limited Activity	Prehistoric	artifact scatter	Mogollon (Jornada)	A.D. 200–1100	1	Unevaluated					WRI-S-1684
Route group 1	P2	LA 35177	Limited Activity	Prehistoric	artifact scatter	Mogollon (Jornada)	A.D. 200–1100	1	Unevaluated					WRI-S-1685
Route group 1	P2	LA 51111	Limited Activity	Prehistoric	artifact scatter	Archaic	Late Archaic 1800 B.C.–A.D. 900	1	Unevaluated					WRI-S-1750
Route group 1	P2	LA 35178	Limited Activity	Unknown	artifact scatter	Unknown	Unknown 9500 B.C.–A.D. 1993	1	Unevaluated					WRI-S-1686
Route group 1	P2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2211
Route group 1	P2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2212
Route group 1	P2	LA 51112	Unknown	Unknown	Unknown	Unknown	9500 B.C.–A.D. 1993	1	Unevaluated					WRI-S-1751
Route group 1	P2	None	Utility	Historic	Pipeline			1	Unevaluated -- Mapped Resource					WRI-M-2224
Route group 1	P2	Crooke's Wagon Road/Mormon Battalion Trail	Transportation	Historic	Trail	Euro-American	Unspecified	1	Unevaluated -- Mapped Resource					WRI-M-3705
Route group 2	P4a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1986
Route group 2	P4a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1987
Route group 2	P4a	Continental Divide	Transportation	Historic	Trail	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-2231
Route group 2	P4b	None	Industrial	Historic	Railroad			1	Unevaluated -- Mapped Resource					WRI-M-2179

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 2	P4b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2180
Route group 2	P4b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2181
Route group 2	P4b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2182
Route group 2	P4b	None	Utility	Historic	Pipeline			1	Unevaluated -- Mapped Resource					WRI-M-2224
Route group 2	P4c	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1803
Route group 2	P4c	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2044
Route group 2	P5a	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-2055
Route group 2	P5a	LA 55764	Limited Activity	Prehistoric	artifact scatter with Feature	Mogollon	Early Pueblo A.D. 1050–1250	1	Unevaluated		SHPO	62627	1/16/2002	WRI-S-1775
Route group 2	P5a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1808
Route group 2	P5a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1809
Route group 2	P5a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1810
Route group 2	P5a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2077
Route group 2	P5b	LA 130265	Habitation	Historic	artifact scatter with Features	Euro-American	Territorial–Statehood 1880–1920	1	Determined Eligible		SHPO	62627	1/16/2002	WRI-S-1503
Route group 2	P5b	LA 55762	Habitation	Multi	artifact scatter with Features	Unknown, Euro-American	9500 B.C.–A.D. 1550, US Territorial 1846–1912	1	Determined Eligible		SHPO	62627	1/16/2002	WRI-S-1773
Route group 2	P5b	AZ CC:12:22(ASM)	Habitation	Prehistoric	artifact scatter	Native Archaeological Culture	ceramic A.D. 200–1500	1	Unevaluated					WRI-S-1332
Route group 2	P5b	AZ CC:12:23(ASM)	Habitation	Prehistoric	Rock Shelters with Artifacts	Native Archaeological Culture	ceramic A.D. 200–1500	1	Unevaluated					WRI-S-1333
Route group 2	P5b	AZ CC:12:24(ASM)	Limited Activity	Historic	artifact scatter	Non Native Culture	1917–1931	1	Unevaluated					WRI-S-1334
Route group 2	P5b	AZ CC:12:20(ASM)	Limited Activity	Prehistoric	artifact scatter	Native Archaeological Culture	Prehistoric 1200 B.C.–A.D. 1500	1	Unknown					WRI-S-1330
Route group 2	P5b	AZ CC:12:25(ASM)	Limited Activity	Prehistoric	artifact scatter	Native Archaeological Culture	Prehistoric 1200 B.C.–A.D. 1500	1	Unknown					WRI-S-1335
Route group 2	P5b	None	Mining	Historic	Mine			15	Unevaluated -- Mapped Resource					WRI-M-1460
Route group 2	P5b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0001
Route group 2	P5b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0023
Route group 2	P5b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0024
Route group 2	P5b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0025

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 2	P5b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0075
Route group 2	P5b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0230
Route group 2	P5b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0245
Route group 2	P5b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0249
Route group 2	P5b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0254
Route group 2	P5b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0258
Route group 2	P5b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0274
Route group 2	P5b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0275
Route group 2	P5b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-1811
Route group 2	P5b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2077
Route group 2	P5b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2080
Route group 2	P5b	None	Transportation	Historic	Stage route			1	Unevaluated -- Mapped Resource					WRI-M-0600
Route group 2	P6a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0010
Route group 2	P6a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0079
Route group 2	P6a	AZ AA:16:377(ASM)	Transportation	Historic	State Route 86	Euro-American	1900–1950	1	Determined Eligible	A, D	SHPO	NA	10/3/2003	WRI-S-1183
Route group 2	P6b	AZ CC:10:43(ASM)	Habitation	Multi	artifact scatter with structure	Native Archaeological Culture; Other	Prehistoric 12,000 B.C.–A.D. 1500; Historic A.D. 1500–1950	1	Unevaluated					WRI-S-1281
Route group 2	P6b	AZ CC:11:49(ASM)	Habitation	Prehistoric	Village with artifact scatter	San Simon	Prehistoric 1200 B.C.–A.D. 1500	1	Unknown					WRI-S-1319
Route group 2	P6b	AZ CC:10:20(ASM)	Limited Activity	Historic	artifact scatter with Feature	Euro-American	A.D. 1900	1	Unknown					WRI-S-1264
Route group 2	P6b	AZ CC:10:26(ASM)	Limited Activity	Multi	artifact scatter with Features	Euro-American, Native Archaeological Culture	Historic A.D. 1500–1950; Prehistoric 1200 B.C.–A.D. 1500	1	Unknown					WRI-S-1270
Route group 2	P6b	AZ CC:10:44(ASM)	Limited Activity	Multi	artifact scatter with Features	Native Archaeological Culture; Other	Prehistoric 12,000 B.C.–A.D. 1500; Historic A.D. 1500–1950	1	Unevaluated					WRI-S-1282
Route group 2	P6b	AZ CC:10:32(ASM)	Limited Activity	Prehistoric	artifact scatter	Native Archaeological Culture	Prehistoric 12,000 B.C.–A.D. 1500;	1	Unevaluated					WRI-S-1276
Route group 2	P6b	AZ CC:10:34(ASM)	Limited Activity	Prehistoric	artifact scatter	Unknown	Prehistoric 12,000 B.C.–A.D. 1500;	1	Unevaluated					WRI-S-1278
Route group 2	P6b	AZ CC:10:12(BLM)	Limited Activity	Prehistoric	artifact scatter	Native American	Prehistoric 12,000 B.C.–A.D. 1500	1	Unevaluated					WRI-S-3472

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 2	P6b	AZ CC:11:18(ASM)/AR 544	Limited Activity	Prehistoric	artifact scatter	Native American	Unknown	1	Unknown					WRI-S-3480
Route group 2	P6b	AZ CC:10:41(ASM)	Limited Activity	Prehistoric	artifact scatter with Feature	Native Archaeology Culture	Prehistoric 12,000 B.C.–A.D. 1500	1	Unknown					WRI-S-1280
Route group 2	P6b	AZ CC:10:33(ASM)	Limited Activity	Prehistoric	artifact scatter with features	Unknown	Prehistoric 12,000 B.C.–A.D. 1500	1	Unevaluated					WRI-S-1277
Route group 2	P6b	None	Ranching	Historic	Ranch			2	Unevaluated -- Mapped Resource					WRI-M-0865
Route group 2	P6b	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-0849
Route group 2	P6b	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-1235
Route group 2	P6b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0033
Route group 2	P6b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0034
Route group 2	P6b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0036
Route group 2	P6b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0043
Route group 2	P6b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0046
Route group 2	P6b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0047
Route group 2	P6b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0048
Route group 2	P6b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0066
Route group 2	P6b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0068
Route group 2	P6b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0069
Route group 2	P6b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0070
Route group 2	P6b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0078
Route group 2	P6b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0081
Route group 2	P6b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0088
Route group 2	P6b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0089
Route group 2	P6b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0090
Route group 2	P6b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0091
Route group 2	P6b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0099

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 2	P6b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0106
Route group 2	P6b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0107
Route group 2	P6b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0126
Route group 2	P6b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0130
Route group 2	P6b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0153
Route group 2	P6b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0606
Route group 2	P6b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0608
Route group 2	P6b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0609
Route group 2	P6b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0611
Route group 2	P6b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0630
Route group 2	P6b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0634
Route group 2	P6b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0635
Route group 2	P6b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0643
Route group 2	P6b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0649
Route group 2	P6b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0650
Route group 2	P6b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2095
Route group 2	P6b	AZ CC:11:48(ASM)	Water Control	Multi	Canals	Unknown	Historic A.D.1500–1950; Prehistoric 12,000 B.C.–A.D. 1500	1	Unevaluated					WRI-S-1318
Route group 2	P6c	None	Industrial	Historic	Railroad feature			1	Unevaluated -- Mapped Resource					WRI-M-2096
Route group 2	P6c	AZ CC:10:26(ASM)	Limited Activity	Multi	artifact scatter with Features	Euro-American, Native Archaeological Culture	Historic A.D.1500–1950; Prehistoric 12,000 B.C.–A.D. 1500	1	Unknown					WRI-S-1270
Route group 2	P6c	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0114
Route group 2	P6c	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0115
Route group 2	P6c	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0282
Route group 2	P6c	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0670

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 2	P6c	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2098
Route group 2	P6c	None	Utility	Historic	Pipeline			1	Unevaluated -- Mapped Resource					WRI-M-2219
Route group 2	P7	AZ CC:10:107(ASM)	Habitation	Prehistoric	artifact scatter with Features	Native Archaeological Culture	Prehistoric 12,000 B.C.– A.D. 1500	1	Unevaluated					WRI-S-1254
Route group 2	P7	AZ CC:9:47(ASM)	Habitation	Prehistoric	artifact scatter/Camp	Cochise	Archaic 8000 B.C.– A.D. 200	1	Unevaluated					WRI-S-1409
Route group 2	P7	None	Industrial	Historic	Railroad feature			1	Unevaluated -- Mapped Resource					WRI-M-2232
Route group 2	P7	AZ CC:13:11(ASM)	Limited Activity	Prehistoric	artifact scatter	Mogollon	Prehistoric 12,000 B.C.– A.D. 1500	1	Unevaluated					WRI-S-1347
Route group 2	P7	AZ CC:13:12(ASM)	Limited Activity	Prehistoric	artifact scatter	Native Archaeological Culture	Prehistoric 12,000 B.C.– A.D. 1500	1	Unevaluated					WRI-S-1348
Route group 2	P7	AZ CC:13:15(ASM)	Limited Activity	Prehistoric	artifact scatter	Mogollon	Mogollon Pueblo Period A.D. 1150–1400	1	Unevaluated					WRI-S-1351
Route group 2	P7	AZ CC:13:65(ASM)	Limited Activity	Prehistoric	artifact scatter	Cochise	Archaic 8000 B.C.–A.D. 200	1	Unevaluated					WRI-S-1377
Route group 2	P7	AZ CC:9:2(ASM)	Limited Activity	Prehistoric	artifact scatter	Native Archaeological Culture	12,000 B.C.–A.D. 1500	1	Unevaluated					WRI-S-1398
Route group 2	P7	AMF Survey: lithic	Limited Activity	Unknown	artifact scatter	Unknown	Unknown	1	Unknown					WRI-S-3543
Route group 2	P7	None	Mining	Historic	Mining feature			1	Unevaluated -- Mapped Resource					WRI-M-1011
Route group 2	P7	None	Other	Historic	Tank			1	Unevaluated -- Mapped Resource					WRI-M-0940
Route group 2	P7	None	Other	Historic	Tank			1	Unevaluated -- Mapped Resource					WRI-M-0950
Route group 2	P7	AZ CC:13:13(ASM)	Ranching	Historic	Historic Ranching	Euro-American	Post– A.D. 1880	1	Unknown					WRI-S-1349
Route group 2	P7	AZ CC:9:4(ASM)	Ranching	Historic	Homestead	Non Native Archaeological Culture; Native Archaeological Culture	Historic A.D. 1500–1950; Prehistoric 12,000 B.C.–A.D. 1500	1	Unevaluated					WRI-S-1407
Route group 2	P7	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-0941
Route group 2	P7	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-0959
Route group 2	P7	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-0964
Route group 2	P7	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-1241
Route group 2	P7	AZ CC:3:91(ASM)	Transportation	Historic	Historic Road (US191, US 71)	Euro-American	Historic A.D. 1800–1950	1	Determined Eligible	A, D	SHPO	NA	5/6/2002; 1/8/2004	WRI-S-1395
Route group 2	P7	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0121
Route group 2	P7	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0156
Route group 2	P7	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0157

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 2	P7	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0158
Route group 2	P7	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0160
Route group 2	P7	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0164
Route group 2	P7	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0169
Route group 2	P7	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0227
Route group 2	P7	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0671
Route group 2	P7	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0673
Route group 2	P7	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0678
Route group 2	P7	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0680
Route group 2	P7	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0686
Route group 2	P7	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0697
Route group 2	P7	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0699
Route group 2	P7	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0701
Route group 2	P7	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2097
Route group 2	P7	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2098
Route group 2	P7	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2100
Route group 2	P7	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2221
Route group 2	P7	AMF Survey: historic	Unknown	Unknown	Unknown	Unknown	Unknown	1	Unknown					WRI-S-3637
Route group 2	P7	AMF Survey: historic-prehistoric mix	Unknown	Unknown	Unknown	Unknown	Unknown	1	Unknown					WRI-S-3656
Route group 2	P7	AMF Survey: historic-prehistoric mix	Unknown	Unknown	Unknown	Unknown	Unknown	1	Unknown					WRI-S-3658
Route group 2	P7	None	Utility	Historic	Pipeline			1	Unevaluated -- Mapped Resource					WRI-M-2219
Route group 2	P7	None	Utility	Historic	Pipeline			1	Unevaluated -- Mapped Resource					WRI-M-2220
Route group 2	P7	None	Utility	Historic	Telegraph line			1	Unevaluated -- Mapped Resource					WRI-M-0679

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 2	P7	None	Utility	Historic	Telegraph line			1	Unevaluated -- Mapped Resource					WRI-M-0685
Route group 2	P8	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0174
Route group 2	P8	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0175
Route group 2	U1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0177
Route group 2	U1a	AZ CC:13:80(ASM)	Utility	Historic	Transmission Line with artifact scatter	Euro-American	Historic	1	Recommended Ineligible					WRI-S-1388
Route group 2	U1b	AZ CC:13:80(ASM)	Utility	Historic	Transmission Line with artifact scatter	Euro-American	Historic	1	Recommended Ineligible					WRI-S-1388
Route group 2	U2	AZ CC:13:80(ASM)	Utility	Historic	Transmission Line with artifact scatter	Euro-American	Historic	1	Recommended Ineligible					WRI-S-1388
Route group 2	U3a	AZ CC:13:80(ASM)	Utility	Historic	Transmission Line with artifact scatter	Euro-American	Historic	1	Recommended Ineligible					WRI-S-1388
Route group 2	U3b	AZ CC:13:80(ASM)	Utility	Historic	Transmission Line with artifact scatter	Euro-American	Historic	1	Recommended Ineligible					WRI-S-1388
Route group 2	U3c	AZ CC:13:80(ASM)	Utility	Historic	Transmission Line with artifact scatter	Euro-American	Historic	1	Recommended Ineligible					WRI-S-1388
Route group 2	U3d	AZ CC:13:80(ASM)	Utility	Historic	Transmission Line with artifact scatter	Euro-American	Historic	1	Recommended Ineligible					WRI-S-1388
Route group 2	U3e	AZ CC:13:80(ASM)	Utility	Historic	Transmission Line with artifact scatter	Euro-American	Historic	1	Recommended Ineligible					WRI-S-1388
Route group 2	U3f	AZ CC:13:80(ASM)	Utility	Historic	Transmission Line with artifact scatter	Euro-American	Historic	1	Recommended Ineligible					WRI-S-1388
Route group 2	U3h	AZ CC:13:80(ASM)	Utility	Historic	Transmission Line with artifact scatter	Euro-American	Historic	1	Recommended Ineligible					WRI-S-1388
Route group 2	U3i	AZ CC:13:80(ASM)	Utility	Historic	Transmission Line with artifact scatter	Euro-American	Historic	1	Recommended Ineligible					WRI-S-1388
Upgrade Section														
Route group 4	MA1	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0417
Route group 4	TH1 Option	AZ AA:16:51(ASM)/AZ AA:16:6(ASM)	Habitation	Historic	Desert Laboratory of the Carnegie Center	Euro-American	Late Historic A.D. 1900–1950	1	Determined Eligible					WRI-S-1185
Route group 4	TH1 Option	10000109/AZ AA:16:6(ASM)	Habitation	Prehistoric	habitation			1	Listed on State and/or Federal Register					WRI-R-3533
Route group 4	TH1 Option	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-4316
Route group 4	TH1 Option	Crooke's Wagon Road/Mormon Battalion Trail	Transportation	Historic	Trail	Euro-American	Unspecified	1	Unevaluated -- Mapped Resource					WRI-M-3705
Route group 4	TH1a	AZ AA:16:51(ASM)/AZ AA:16:6(ASM)	Habitation	Historic	Desert Laboratory of the Carnegie Center	Euro-American	Late Historic A.D. 1900–1950	1	Determined Eligible					WRI-S-1185
Route group 4	TH1a	10000109/AZ AA:16:6(ASM)	Habitation	Prehistoric	habitation			1	Listed on State and/or Federal Register					WRI-R-3533

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 4	TH1a	AZ CC:13:80(ASM)	Utility	Historic	Transmission Line with artifact scatter	Euro-American	Historic	1	Recommended Ineligible					WRI-S-1388
Route group 4	TH1b	AZ AA:16:188(ASM)	agriculture	Prehistoric	agricultural features	Native American	Hohokam	1	Unevaluated					WRI-S-3734
Route group 4	TH1b	AZ AA:16:51(ASM)/AZ AA:16:6(ASM)	Habitation	Historic	Desert Laboratory of the Carnegie Center	Euro-American	Late Historic A.D. 1900–1950	1	Determined Eligible					WRI-S-1185
Route group 4	TH1b	10000109/AZ AA:16:6(ASM)	Habitation	Prehistoric	habitation			1	Listed on State and/or Federal Register					WRI-R-3533
Route group 4	TH1b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4023
Route group 4	TH1b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4026
Route group 4	TH1b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4029
Route group 4	TH1b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4030
Route group 4	TH1b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4032
Route group 4	TH1b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4305
Route group 4	TH1b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4307
Route group 4	TH1b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4310
Route group 4	TH1b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4311
Route group 4	TH1b	Crooke's Wagon Road/Mormon Battalion Trail	Transportation	Historic	Trail	Euro-American	Unspecified	1	Unevaluated -- Mapped Resource					WRI-M-3705
Route group 4	TH1b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4311
Route group 4	TH1b	AZ AA:12:875(ASM)	Utility	Historic	El Paso Natural Gas pipeline No. 1007	Euro-American	1930s	1	Determined Eligible	C, D	SHPO	NA	2/4/2004	WRI-S-1170
Route group 4	TH1b	None	Utility	Historic	Utility line			1	Unevaluated -- Mapped Resource					WRI-M-4303
Route group 4	TH1c	AZ AA:16:333(ASM)	Limited Activity	Prehistoric	artifact scatter	Hohokam	Ceramic A.D. 200–1500	1	Unevaluated					WRI-S-1182
Route group 4	TH1c	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-4624
Route group 4	TH1c	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2132
Route group 4	TH1c	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4034
Route group 4	TH1c	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4327
Route group 4	TH1c	AZ CC:13:80(ASM)	Utility	Historic	Transmission Line with artifact scatter	Euro-American	Historic	1	Recommended Ineligible					WRI-S-1388

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 4	TH1c	None	Utility	Historic	Utility line			1	Unevaluated -- Mapped Resource					WRI-M-4035
Route group 4	TH3 Option A	AZ BB:13:105(ASM)	Habitation	Multi	artifact scatter and structure	Native American	Hohokam and O'odham		Unevaluated					WRI-S-3737
Route group 4	TH3 Option A	AZ BB:13:101(ASM)	Habitation	Prehistoric	artifact scatter	Native American	Hohokam	1	Determined Eligible	D	SHPO	NA	1/21/2004	WRI-S-3736
Route group 4	TH3 Option A	AZ BB:13:103(ASM)	Limited Activity	Prehistoric	artifact scatter	Hohokam	Ceramic A.D. 200–1500	1	Unevaluated					WRI-S-1190
Route group 4	TH3 Option A	None	Other	Historic	Compound			23	Unevaluated -- Mapped Resource					WRI-M-4695
Route group 4	TH3 Option A	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-4645
Route group 4	TH3 Option A	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0452
Route group 4	TH3 Option A	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0537
Route group 4	TH3 Option A	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4055
Route group 4	TH3 Option A	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4068
Route group 4	TH3 Option A	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4114
Route group 4	TH3 Option A	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4116
Route group 4	TH3 Option A	AZ BB:13:780(ASM)	Utility	Historic	Transmission Line	Euro-American	Late Historic	1	Unknown					WRI-S-1222
Route group 4	TH3 Option A	AZ BB:13:142(ASM)	Water Control Features	Historic	cistern	Euro-American	A.D. 1900–1950		Unevaluated					WRI-S-3753
Route group 4	TH3 Option A	None	Water Control Features	Historic	Well			1	Unevaluated -- Mapped Resource					WRI-M-4642
Route group 4	TH3 Option B	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4028
Route group 4	TH3 Option B	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4067
Route group 4	TH3 Option B	Juan Bautista de Anza Route	Transportation	Historic	Trail	Euro-American	Unspecified	1	Unevaluated -- Mapped Resource					WRI-M-3704
Route group 4	TH3 Option C	AZ BB:13:17(ASM)	Habitation	Prehistoric	artifact scatter	Native American	Hohokam A.D. 200–1500	1	Determined Eligible	D	SHPO	NA	9/16/2002	WRI-S-3805
Route group 4	TH3 Option C	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-4648
Route group 4	TH3 Option C	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-4649
Route group 4	TH3 Option C	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-4650
Route group 4	TH3 Option C	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-4651
Route group 4	TH3 Option C	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-4654

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 4	TH3 Option C	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-4657
Route group 4	TH3 Option C	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-4659
Route group 4	TH3 Option C	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-4693
Route group 4	TH3 Option C	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4042
Route group 4	TH3 Option C	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4043
Route group 4	TH3 Option C	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4044
Route group 4	TH3 Option C	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4053
Route group 4	TH3 Option C	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4054
Route group 4	TH3 Option C	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4068
Route group 4	TH3 Option C	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4069
Route group 4	TH3 Option C	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4070
Route group 4	TH3 Option C	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4071
Route group 4	TH3 Option C	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4072
Route group 4	TH3 Option C	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4073
Route group 4	TH3 Option C	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4074
Route group 4	TH3 Option C	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4076
Route group 4	TH3 Option C	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4326
Route group 4	TH3 Option C	AZ AA:16:377(ASM)	Transportation	Historic	State Route 86	Euro-American	1900–1950	1	Determined Eligible	A, D	SHPO	NA	10/3/2003	WRI-S-1183
Route group 4	TH3 Option C	AZ BB:13:539(ASM)	Water Control Features	Historic	canal	Unknown	1700–1950		Unevaluated					WRI-S-3799
Route group 4	TH3a	AZ BB:13:402(ASM)	Habitation	Prehistoric	artifact scatter	Native American	Hohokam and O'odham A.D. 200–1700	1	Unevaluated					WRI-S-3752
Route group 4	TH3a	AZ BB:13:17(ASM)	Habitation	Prehistoric	artifact scatter	Native American	Hohokam A.D. 200–1500	1	Determined Eligible	D	SHPO	NA	9/16/2002	WRI-S-3805
Route group 4	TH3a	AZ BB:13:97(ASM)	Habitation	Prehistoric	artifacts and features	Native American	Hohokam Pre–Classic Period	1	Unevaluated					WRI-S-3738
Route group 4	TH3a	None	Other	Historic	Compound			23	Unevaluated -- Mapped Resource					WRI-M-4695
Route group 4	TH3a	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-4693

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 4	TH3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4042
Route group 4	TH3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4043
Route group 4	TH3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4045
Route group 4	TH3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4046
Route group 4	TH3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4047
Route group 4	TH3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4048
Route group 4	TH3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4049
Route group 4	TH3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4050
Route group 4	TH3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4051
Route group 4	TH3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4052
Route group 4	TH3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4055
Route group 4	TH3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4057
Route group 4	TH3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4058
Route group 4	TH3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4059
Route group 4	TH3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4060
Route group 4	TH3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4064
Route group 4	TH3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4076
Route group 4	TH3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4099
Route group 4	TH3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4100
Route group 4	TH3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4101
Route group 4	TH3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4102
Route group 4	TH3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4104
Route group 4	TH3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4105
Route group 4	TH3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4107

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 4	TH3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4108
Route group 4	TH3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4110
Route group 4	TH3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4326
Route group 4	TH3a	AZ CC:13:80(ASM)	Utility	Historic	Transmission Line with artifact scatter	Euro-American	Historic	1	Recommended Ineligible					WRI-S-1388
Route group 4	TH3a	AZ BB:13:780(ASM)	Utility	Historic	Transmission Line	Euro-American	Late Historic	1	Unknown					WRI-S-1222
Route group 4	TH3a	None	Utility	Historic	Utility line			1	Unevaluated -- Mapped Resource					WRI-M-4065
Route group 4	TH3a	None	Water Control Features	Historic	Well			1	Unevaluated -- Mapped Resource					WRI-M-4641
Route group 4	TH3b	AZ BB:13:86(ASM)	Habitation	Prehistoric	artifact scatter	Native American	Hohokam A.D. 200–1500	1	Unevaluated					WRI-S-3796
Route group 4	TH3b	AZ BB:13:94(ASM)	Habitation	Prehistoric	artifact scatter	Native American	Hohokam and O'odham A.D. 200–1500 and A.D. 1500–1950	1	Determined Eligible	D	SHPO	NA	Feb-12	WRI-S-3797
Route group 4	TH3b	AZ BB:13:17(ASM)	Habitation	Prehistoric	artifact scatter	Native American	Hohokam A.D. 200–1500	1	Determined Eligible	D	SHPO	NA	9/16/2002	WRI-S-3805
Route group 4	TH3b	AZ BB:13:111(ASM)	Industrial	Multi	Lee's Mill	Multi	Hohokam and Euro–American A.D. 200–1900		Determined Eligible	D	SHPO	NA	Feb-12	WRI-S-3798
Route group 4	TH3b	AZ BB:13:88(ASM)	Limited Activity	Prehistoric	artifact scatter	Native American	Hohokam and O'odham A.D. 200–1950	1	Unevaluated					WRI-S-3802
Route group 4	TH3b	None	Mining	Historic	Mining feature			1	Unevaluated -- Mapped Resource					WRI-M-4633
Route group 4	TH3b	None	Other	Historic	Compound			1	Unevaluated -- Mapped Resource					WRI-M-4827
Route group 4	TH3b	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-4632
Route group 4	TH3b	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-4635
Route group 4	TH3b	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-4636
Route group 4	TH3b	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-4662
Route group 4	TH3b	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-4663
Route group 4	TH3b	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-4664
Route group 4	TH3b	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-4665
Route group 4	TH3b	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-4666
Route group 4	TH3b	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-4667

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 4	TH3b	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-4668
Route group 4	TH3b	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-4670
Route group 4	TH3b	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-4671
Route group 4	TH3b	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-4677
Route group 4	TH3b	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-4681
Route group 4	TH3b	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-4683
Route group 4	TH3b	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-4684
Route group 4	TH3b	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-4686
Route group 4	TH3b	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-4688
Route group 4	TH3b	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-4689
Route group 4	TH3b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4040
Route group 4	TH3b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4077
Route group 4	TH3b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4080
Route group 4	TH3b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4081
Route group 4	TH3b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4082
Route group 4	TH3b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4083
Route group 4	TH3b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4087
Route group 4	TH3b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4089
Route group 4	TH3b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4091
Route group 4	TH3b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4092
Route group 4	TH3b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4093
Route group 4	TH3b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4094
Route group 4	TH3b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4096
Route group 4	TH3b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4097

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 4	TH3b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4320
Route group 4	TH3b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4321
Route group 4	TH3b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4322
Route group 4	TH3b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4323
Route group 4	TH3b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4324
Route group 4	TH3b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4325
Route group 4	TH3b	Juan Bautista de Anza Route	Transportation	Historic	Trail	Euro-American	Unspecified	1	Unevaluated -- Mapped Resource					WRI-M-3704
Route group 4	TH3b	AZ BB:13:6(ASM)	Transportation	Multi	Southern Pacific Railroad Mainline - Proponent Alternative	Multi	Hohokam, Mexican–American, Asian–American, Euro–American ca. 1877–1880		Unevaluated	A, D	SHPO	NA	10/14/2003	WRI-S-3800
Route group 4	TH3b	AZ AA:12:875(ASM)	Utility	Historic	El Paso Natural Gas pipeline No. 1007	Euro-American	1930s	1	Determined Eligible	C, D	SHPO	NA	2/4/2004	WRI-S-1170
Route group 4	TH3b	None	Utility	Historic	Utility line			1	Unevaluated -- Mapped Resource					WRI-M-4039
Route group 3	H	None	Industrial	Historic	Railroad feature	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0478
Route group 3	H	None	Industrial	Historic	Railroad feature	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0553
Route group 3	H	AZ EE:3:15(ASM)	Limited Activity	Historic	artifact scatter	Euro-American	Historic A.D. 1500–1950	1	Unevaluated					WRI-S-1423
Route group 3	H	AZ BB:15:11(ASM)	Limited Activity	Prehistoric	artifact scatter	Native Archaeological Culture	Prehistoric 12,000 B.C.–A.D. 1500	1	Unevaluated					WRI-S-1226
Route group 3	H	None	Mining	Historic	Mining feature	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0549
Route group 3	H	None	Ranching	Historic	Ranch	Euro-American		2	Unevaluated -- Mapped Resource					WRI-M-1215
Route group 3	H	None	Town	Historic	Town	Euro-American		11	Unevaluated -- Mapped Resource					WRI-M-1189
Route group 3	H	AZ Z:2:40(ASM)	Transportation	Historic	Railroad (Southern Pacific Railroad Mainline - Proponent Alternative)	Euro-American; Asian-American	1877–1880	1	Determined Eligible	A	SHPO	NA	12/5/2003	WRI-S-1442
Route group 3	H	AZ EE:3:62(ASM)	Transportation	Historic	Railroad Grades	Euro-American	Late Historic A.D. 1900–1950	1	Unevaluated					WRI-S-1433
Route group 3	H	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0350
Route group 3	H	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0421
Route group 3	H	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0422

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 3	H	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0425
Route group 3	H	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0428
Route group 3	H	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0480
Route group 3	H	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0481
Route group 3	H	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0484
Route group 3	H	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0487
Route group 3	H	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0547
Route group 3	H	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0558
Route group 3	H	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0559
Route group 3	H	None	Transportation	Historic	Road	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0746
Route group 3	H	AZ FF:9:17(ASM)	Transportation	Historic	Road (SR 80)	Euro-American	Late Historic 1900–1950	1	Determined Eligible	A, C, D	SHPO	NA	11/28/2004	WRI-S-1440
Route group 3	H	None	Transportation	Historic	Trail	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0545
Route group 3	H	None	Transportation	Historic	Trail	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0552
Route group 3	H	Zuñiga Route	Transportation	Historic	Trail	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-3703
Route group 3	H	Crooke's Wagon Road/Mormon Battalion Trail	Transportation	Historic	Trail	Euro-American	Unspecified	1	Unevaluated -- Mapped Resource					WRI-M-3705
Route group 3	H	Butterfield Trail	Transportation	Historic	Trail	Euro-American	Unspecified	1	Determined Eligible		SHPO	173	8/13/1970	WRI-R-3541
Route group 3	H	None	Utility	Historic	Pipeline	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0355
Route group 3	H	None	Utility	Historic	Pipeline	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-0548
Route group 3	H	None	Water Control Features	Historic	Acequia	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-1276
Route group 3	H	None	Water Control Features	Historic	Acequia	Euro-American		1	Unevaluated -- Mapped Resource					WRI-M-1277
Route group 3	U1a	AZ BB:16:25(ASM)	Habitation	Prehistoric	artifact scatter	Native Archaeological Culture	Unknown	1	Unevaluated					WRI-S-1236
Route group 3	U1a	None	Industrial	Historic	Railroad feature			1	Unevaluated -- Mapped Resource					WRI-M-0186
Route group 3	U1a	AZ BB:16:18(ASM)	Limited Activity	Prehistoric	artifact scatter	Native Archaeological Culture	12,000 B.C.–A.D. 1500	1	Unevaluated					WRI-S-1234
Route group 3	U1a	AZ BB:16:5(ASM)	Limited Activity	Prehistoric	Bedrock Mortars	Native Archaeological Culture	Prehistoric 12,000 B.C.–A.D. 1500	1	Unevaluated					WRI-S-1242

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 3	U1a	AZ BB:16:28(ASM)	Limited Activity	Unknown	Rock pile with grinding slab	Unknown	Unknown	1	Unevaluated					WRI-S-1239
Route group 3	U1a	None	Mining	Historic	Mine			24	Unevaluated -- Mapped Resource					WRI-M-0991
Route group 3	U1a	AZ CC:13:9(ASM)	Mining	Historic	Mining	Non Native Culture	Historic A.D. 1500–1950	1	Unevaluated					WRI-S-1389
Route group 3	U1a	None	Town	Historic	Town			2	Unevaluated -- Mapped Resource					WRI-M-1165
Route group 3	U1a	AZ CC:13:54(ASM)	Transportation	Historic	North Cochise Stronghold Road	Euro-American	A.D. 1500–1950	1	Unevaluated					WRI-S-3455
Route group 3	U1a	AZ BB:16:39(ASM)	Transportation	Historic	Old Ranch Road	Euro-American	Historic A.D. 1500–1950	1	Unevaluated					WRI-S-1240
Route group 3	U1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0177
Route group 3	U1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0206
Route group 3	U1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0207
Route group 3	U1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0208
Route group 3	U1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0209
Route group 3	U1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0210
Route group 3	U1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0211
Route group 3	U1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0212
Route group 3	U1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0213
Route group 3	U1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0345
Route group 3	U1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0346
Route group 3	U1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0347
Route group 3	U1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0351
Route group 3	U1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0352
Route group 3	U1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0353
Route group 3	U1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0706
Route group 3	U1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0740
Route group 3	U1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0741
Route group 3	U1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0742

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 3	U1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0743
Route group 3	U1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0744
Route group 3	U1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0745
Route group 3	U1a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2099
Route group 3	U1a	AZ BB:16:54(ASM)	Transportation	Historic	Road (Texas Canyon Road)	Euro-American	Post A.D. 1700 Historic A.D. 1700–1950	1	Unevaluated					WRI-S-1243
Route group 3	U1a	Butterfield Trail	Transportation	Historic	Trail	Euro-American	Unspecified	1	Determined Eligible		SHPO	173	8/13/1970	WRI-R-3541
Route group 3	U1a	AZ BB:16:64(ASM)	Unknown	Unknown	Unknown	Unknown	Unknown	1	Unknown					WRI-S-1244
Route group 3	U1a	AZ CC:13:75(ASM)	Unknown	Unknown	Unknown	Unknown	Unknown	1	Unknown					WRI-S-1384
Route group 3	U1a	AZ CC:13:76(ASM)	Unknown	Unknown	Unknown	Unknown	Unknown	1	Unknown					WRI-S-1385
Route group 3	U1a	AZ CC:13:77(ASM)	Unknown	Unknown	Unknown	Unknown	Unknown	1	Unknown					WRI-S-1386
Route group 3	U1a	AZ CC:13:79(ASM)	Unknown	Unknown	Unknown	Unknown	Unknown	1	Unknown					WRI-S-1387
Route group 3	U1a	None	Utility	Historic	Pipeline			1	Unevaluated -- Mapped Resource					WRI-M-0215
Route group 3	U1a	AZ BB:16:24(ASM)	Water Control	Historic	CCC Spreader Dike Features	Euro-American	Late Historic A.D. 1900–1950	1	Unevaluated					WRI-S-1235
Route group 3	U1a	AZ BB:16:26(ASM)	Water Control	Historic	CCC Spreader Dike Features	Euro-American	Late Historic A.D. 1900–1950	1	Unevaluated					WRI-S-1237
Route group 3	U1a	AZ BB:16:27(ASM)	Water Control	Historic	CCC Spreader Dike Features	Euro-American	Late Historic A.D. 1900–1950	1	Unevaluated					WRI-S-1238
Route group 3	U1a	AZ CC:13:51(ASM)	Water Control	Historic	Erosion Features (CCC)	Euro-American	Late Historic A.D. 1900–1950	1	Unevaluated					WRI-S-1370
Route group 3	U1b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0348
Route group 3	U1b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0349
Route group 3	U2	None	Industrial	Historic	Railroad feature			1	Unevaluated -- Mapped Resource					WRI-M-0516
Route group 3	U2	AZ EE:3:213(ASM)	Limited Activity	Historic	artifact scatter	Euro-American	Middle Historic A.D. 1800–1900	1	Unevaluated					WRI-S-1427
Route group 3	U2	AZ EE:3:6(AMF)	Limited Activity	Prehistoric	artifact scatter with Feature	Native Archaeological Culture	12,000 B.C.–A.D. 1500	1	Unknown					WRI-S-1431
Route group 3	U2	AZ EE:3:74(ASM)	Transportation	Historic	Railroad (El Paso - Southwestern Railroad)	Euro-American	Late Historic 1911–1950	1	Determined Eligible	A,D	SHPO	NA	5/22/2003	WRI-S-1435
Route group 3	U2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0495
Route group 3	U2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0515
Route group 3	U2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0517
Route group 3	U2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0529

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 3	U2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0533
Route group 3	U2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0539
Route group 3	U2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0541
Route group 3	U2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0542
Route group 3	U2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0543
Route group 3	U2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0547
Route group 3	U2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0563
Route group 3	U2	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0564
Route group 3	U2	AZ FF:9:17(ASM)	Transportation	Historic	Road (SR 80)	Euro-American	Late Historic 1900–1950	1	Determined Eligible	A, C, D	SHPO	NA	11/28/2004	WRI-S-1440
Route group 3	U2	None	Transportation	Historic	Trail			1	Unevaluated -- Mapped Resource					WRI-M-0545
Route group 3	U2	Butterfield Trail	Transportation	Historic	Trail	Euro-American	Unspecified	1	Determined Eligible		SHPO	173	8/13/1970	WRI-R-3541
Route group 3	U2	AZ EE:3:196(ASM)	Unknown	Unknown	Unknown	Unknown	Unknown	1	Unknown					WRI-S-1425
Route group 3	U2	AZ EE:3:197(ASM)	Unknown	Unknown	Unknown	Unknown	Unknown	1	Unknown					WRI-S-1426
Route group 3	U2	AZ EE:3:253(ASM)	Unknown	Unknown	Unknown	Unknown	Unknown	1	Unknown					WRI-S-1429
Route group 3	U2	AZ BB:16:48(ASM)	Utility	Historic	Historic Natural Gas Pipeline 1103 (El Paso Natural Gas)	Euro-American	Late Historic 1900–1950	1	Unevaluated					WRI-S-1241
Route group 3	U2	None	Utility	Historic	Pipeline			1	Unevaluated -- Mapped Resource					WRI-M-0540
Route group 3	U2	AZ EE:3:85(ASM)	Water Control	Historic	Canal (Pomerene)	Euro-American	Late Historic 1934	1	Unevaluated					WRI-S-1436
Route group 3	U3a	None	Habitation	Historic	Camp Huachuca			1	Unevaluated -- Mapped Resource					WRI-M-2102
Route group 3	U3a	AZ BB:13:560(ASM)	Habitation	Prehistoric	artifact scatter w/Features	Hohokam	Ceramic A.D. 750–1400	1	Unevaluated					WRI-S-1207
Route group 3	U3a	AZ BB:13:74(ASM)	Habitation	Prehistoric	artifact scatter with Feature	Hohokam	Prehistoric 12,000 B.C.–A.D. 1500	1	Unevaluated					WRI-S-1218
Route group 3	U3a	AZ BB:13:7(ASM)	Habitation	Prehistoric	artifact scatter with Features	Native Archaeological Culture	Prehistoric 12,000 B.C.–A.D. 1500	1	Unknown					WRI-S-1215
Route group 3	U3a	84000762	Habitation	Prehistoric	habitation			1	Listed on State and/or Federal Register					WRI-R-3532
Route group 3	U3a	4001247	Habitation	Prehistoric	habitation			1	Listed on State and/or Federal Register					WRI-R-3534
Route group 3	U3a	AZ BB:13:15(ASM)	Habitation	Prehistoric	Habitation (Valencia Site)	Native Archaeological Culture; Hohokam	Paleoindian 12,000–8000 B.C.–Hohokam Classic Period A.D. 1500	1	Listed on State and/or Federal Register					WRI-S-1193
Route group 3	U3a	None	Industrial	Historic	Railroad feature			1	Unevaluated -- Mapped Resource					WRI-M-0578

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 3	U3a	None	Industrial	Historic	Railroad feature			1	Unevaluated -- Mapped Resource					WRI-M-2107
Route group 3	U3a	None	Industrial	Historic	Railroad feature			1	Unevaluated -- Mapped Resource					WRI-M-2114
Route group 3	U3a	AZ BB:14:651(ASM)	Limited Activity	Historic	artifact scatter	Euro-American	Late Historic A.D. 1900–1950	1	Unevaluated					WRI-S-1223
Route group 3	U3a	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-0589
Route group 3	U3a	AZ EE:2:54(ASM)	Limited Activity	Prehistoric	artifact scatter	Unknown	12,000 B.C.–A.D. 1500	1	Unevaluated					WRI-S-1418
Route group 3	U3a	AZ EE:2:97(ASM)	Limited Activity	Prehistoric	artifact scatter	Native Archaeological Culture	Prehistoric 12,000 B.C.–A.D. 1500	1	Unevaluated					WRI-S-1420
Route group 3	U3a	AZ EE:2:98(ASM)	Limited Activity	Prehistoric	artifact scatter	Native Archaeological Culture	Unknown	1	Unevaluated					WRI-S-1421
Route group 3	U3a	AZ EE:2:99(ASM)	Limited Activity	Prehistoric	artifact scatter	Native Archaeological Culture	Unknown	1	Unevaluated					WRI-S-1422
Route group 3	U3a	AZ BB:13:720(ASM)	Limited Activity	Prehistoric	artifact scatter with feature	Hohokam	Ceramic A.D. 200–1500	1	Unevaluated					WRI-S-1217
Route group 3	U3a	AZ BB:13:565(ASM)	Limited Activity	Prehistoric	artifact scatter with Features	Hohokam	Ceramic A.D. 750–1400	1	Unevaluated					WRI-S-1209
Route group 3	U3a	AZ BB:13:638(ASM)	Limited Activity	Prehistoric	Rock Features	Native Archaeological Culture	Prehistoric 12,000 B.C.–A.D. 1500	1	Determined Not Eligible		SHPO	NA	7/27/2000	WRI-S-1210
Route group 3	U3a	None	Military	Historic	Tucson Military Reservation			1	Unevaluated -- Mapped Resource					WRI-M-2155
Route group 3	U3a	AZ EE:2:133(ASM)	Ranching	Historic	artifact scatter with present ranch	Euro-American	Historic A.D. 1500–1950	1	Unevaluated					WRI-S-1412
Route group 3	U3a	AZ BB:13:558(ASM)	Ranching	Multi	Agriculture	Euro-American; Mexican American; Hohokam	Middle Archaic–Historic 4800 B.C.–A.D. 1950	1	Unevaluated					WRI-S-1205
Route group 3	U3a	AZ BB:13:315(ASM)	Ranching	Prehistoric	Agriculture	Hohokam	Prehistoric 12,000 B.C.–A.D. 1500	1	Unevaluated					WRI-S-1195
Route group 3	U3a	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-1187
Route group 3	U3a	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-1188
Route group 3	U3a	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-1199
Route group 3	U3a	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-2145
Route group 3	U3a	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-2146
Route group 3	U3a	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-2168
Route group 3	U3a	AZ BB:13:679(ASM)	Transportation	Historic	Railroad (Tucson & Nogales Railroad)	Historic Archaeological Culture	Late Historic A.D. 1900–1950	1	Unevaluated					WRI-S-1214
Route group 3	U3a	AZ EE:1:300(ASM)	Transportation	Historic	Railroad (Twin Buttes Railroad)	Euro-American	Late Historic ca. 1904	1	Unevaluated					WRI-S-1411
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0456

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0457
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0458
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0459
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0461
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0463
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0464
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0465
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0466
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0467
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0468
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0469
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0471
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0473
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0474
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0475
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0482
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0483
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0485
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0486
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0504
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0505
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0506
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0508
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0509

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0510
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0511
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0512
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0518
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0519
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0520
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0521
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0522
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0523
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0524
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0525
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0526
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0527
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0535
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0536
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0579
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0580
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0583
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0584
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0587
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0588
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0748
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0749
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0750

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0751
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0752
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0753
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0756
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0757
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0760
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0761
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0765
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2101
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2103
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2104
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2113
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2115
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2134
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2136
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2137
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2153
Route group 3	U3a	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2154
Route group 3	U3a	AZ BB:13:659(ASM)	Transportation	Historic	Road	Euro-American	Historic A.D. 1500–1950	1	Unevaluated					WRI-S-1212
Route group 3	U3a	AZ EE:2:488(ASM)	Transportation	Historic	Road	Euro-American	A.D. 1500–1950	1	Unevaluated					WRI-S-1415
Route group 3	U3a	AZ BB:13:658(ASM)	Transportation	Historic	Road (Old Nogales Highway)	Euro-American	Historic A.D. 1500–1950	1	Unevaluated					WRI-S-1211
Route group 3	U3a	AZ BB:14:676(ASM)	Transportation	Historic	Road (Vail Road extension)	Euro-American	Historic A.D. 1500–1950	1	Unevaluated					WRI-S-1224
Route group 3	U3a	AZ BB:13:759(ASM)	Unknown	Unknown	Unknown	Unknown	Unknown	1	Unknown					WRI-S-1221
Route group 3	U3a	AZ EE:2:520(ASM)	Unknown	Unknown	Unknown	Unknown	Unknown	1	Unevaluated					WRI-S-1416
Route group 3	U3a	AZ EE:2:526(ASM)	Unknown	Unknown	Unknown	Unknown	Unknown	1	Unknown					WRI-S-1417

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 3	U3a	None	Utility	Historic	Pipeline			1	Unevaluated -- Mapped Resource					WRI-M-0586
Route group 3	U3a	AZ BB:13:780(ASM)	Utility	Historic	Transmission Line	Euro-American	Late Historic	1	Unknown					WRI-S-1222
Route group 4	U3b	AZ BB:13:74(ASM)	Habitation	Prehistoric	artifact scatter with Feature	Hohokam	Prehistoric 12,000 B.C.–A.D. 1500	1	Unevaluated					WRI-S-1218
Route group 4	U3b	AZ BB:13:102(ASM)	Limited Activity	Historic	artifact scatter	O'odham	Historic A.D. 1500–1950	1	Unevaluated					WRI-S-1189
Route group 4	U3b	AZ BB:13:103(ASM)	Limited Activity	Prehistoric	artifact scatter	Hohokam	Ceramic A.D. 200–1500	1	Unevaluated					WRI-S-1190
Route group 4	U3b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0453
Route group 4	U3b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0454
Route group 4	U3b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0455
Route group 4	U3b	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0537
Route group 4	U3b	AZ BB:13:780(ASM)	Utility	Historic	Transmission Line	Euro-American	Late Historic	1	Unknown					WRI-S-1222
Route group 4	U3b	None	Water Control Features	Historic	Well			1	Unevaluated -- Mapped Resource					WRI-M-1201
Route group 4	U3c	AZ BB:13:20(ASM)	Habitation	Prehistoric	artifact scatter	Native Archaeological Culture; Hohokam	Early Ceramic A.D. 200–1000; Historic A.D. 1500–1950	1	Unevaluated					WRI-S-1194
Route group 4	U3c	AZ BB:13:103(ASM)	Limited Activity	Prehistoric	artifact scatter	Hohokam	Ceramic A.D. 200–1500	1	Unevaluated					WRI-S-1190
Route group 4	U3c	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0451
Route group 4	U3c	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0452
Route group 4	U3c	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0453
Route group 4	U3c	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0537
Route group 4	U3c	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2133
Route group 4	U3c	Juan Bautista de Anza Route	Transportation	Historic	Trail	Euro-American	Unspecified	1	Unevaluated -- Mapped Resource					WRI-M-3704
Route group 4	U3c	AZ BB:13:749(ASM)	Unknown	Unknown	Unknown	Unknown	Unknown	1	Unknown					WRI-S-1219
Route group 4	U3c	AZ BB:13:780(ASM)	Utility	Historic	Transmission Line	Euro-American	Late Historic	1	Unknown					WRI-S-1222
Route group 4	U3d	AZ AA:16:51(ASM)/AZ AA:16:6(ASM)	Habitation	Historic	Desert Laboratory of the Carnegie Center	Euro-American	Late Historic A.D. 1900–1950	1	Determined Eligible					WRI-S-1185

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 4	U3d	AZ AA:16:3(ASM)	Habitation	Multi	Habitation	Euro-American; Native Archaeological Culture; Hohokam	Late Archaic San Pedro 1500 B.C.–A.D. 200; Middle Archaic 4800–1500 B.C.; Pre–Classic Period A.D. 450–1100; Sedentary Period Early & Middle Rincon Phases A.D. 950–1100; Historic A.D. 1500–1950	1	Determined Eligible	D	SHPO	NA	7/28/2003	WRI-S-1180
Route group 4	U3d	10000109/AZ AA:16:6(ASM)	Habitation	Prehistoric	habitation			1	Listed on State and/or Federal Register					WRI-R-3533
Route group 4	U3d	AZ AA:16:420(ASM)	Limited Activity	Prehistoric	artifact scatter	Native Archaeological Culture	1200 B.C.– A.D. 1500	1	Unknown					WRI-S-1184
Route group 4	U3d	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-1220
Route group 4	U3d	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-2144
Route group 4	U3d	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0565
Route group 4	U3d	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0566
Route group 4	U3d	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0567
Route group 4	U3d	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0568
Route group 4	U3d	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0569
Route group 4	U3d	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0570
Route group 4	U3d	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0571
Route group 4	U3d	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0576
Route group 4	U3d	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2108
Route group 4	U3d	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2112
Route group 4	U3d	AZ AA:16:377(ASM)	Transportation	Historic	State Route 86	Euro-American	1900–1950	1	Determined Eligible	A, D	SHPO	NA	10/3/2003	WRI-S-1183
Route group 4	U3e	AZ AA:16:51(ASM)/AZ AA:16:6(ASM)	Habitation	Historic	Desert Laboratory of the Carnegie Center	Euro-American	Late Historic A.D. 1900–1950	1	Determined Eligible					WRI-S-1185
Route group 4	U3e	10000109/AZ AA:16:6(ASM)	Habitation	Prehistoric	habitation			1	Listed on State and/or Federal Register					WRI-R-3533
Route group 4	U3f	AZ AA:16:51(ASM)/AZ AA:16:6(ASM)	Habitation	Historic	Desert Laboratory of the Carnegie Center	Euro-American	Late Historic A.D. 1900–1950	1	Determined Eligible					WRI-S-1185
Route group 4	U3f	10000109/AZ AA:16:6(ASM)	Habitation	Prehistoric	habitation			1	Listed on State and/or Federal Register					WRI-R-3533
Route group 4	U3f	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2166

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 4	U3g	AZ AA:16:51(ASM)/AZ AA:16:6(ASM)	Habitation	Historic	Desert Laboratory of the Carnegie Center	Euro-American	Late Historic A.D. 1900–1950	1	Determined Eligible					WRI-S-1185
Route group 4	U3g	10000109/AZ AA:16:6(ASM)	Habitation	Prehistoric	habitation			1	Listed on State and/or Federal Register					WRI-R-3533
Route group 4	U3g	AZ AA:16:26(ASM)	Habitation	Prehistoric	Habitation Site (St. Mary's)	Hohokam	Pioneer to Classic Period Hohokam Ceramic A.D. 200–1500; Middle Rincon A.D. 950–1100	1	Unevaluated	D	SHPO	NA	10/11/2001	WRI-S-1178
Route group 4	U3g	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-0581
Route group 4	U3g	AZ AA:16:333(ASM)	Limited Activity	Prehistoric	artifact scatter	Hohokam	Ceramic A.D. 200–1500	1	Unevaluated					WRI-S-1182
Route group 4	U3g	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-1225
Route group 4	U3g	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0572
Route group 4	U3g	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0573
Route group 4	U3g	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0574
Route group 4	U3g	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0577
Route group 4	U3g	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0582
Route group 4	U3g	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2132
Route group 4	U3g	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2165
Route group 4	U3g	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2166
Route group 4	U3g	AZ AA:12:875(ASM)	Utility	Historic	El Paso Natural Gas pipeline No. 1007	Euro-American	1930s	1	Determined Eligible	C, D	SHPO	NA	2/4/2004	WRI-S-1170
Route group 4	U3h	AZ AA:16:333(ASM)	Limited Activity	Prehistoric	artifact scatter	Hohokam	Ceramic A.D. 200–1500	1	Unevaluated					WRI-S-1182
Route group 4	U3h	AZ BB:13:320(ASM)	Limited Activity	Prehistoric	artifact scatter	Hohokam	Ceramic A.D. 200–1500	1	Unevaluated					WRI-S-1196
Route group 4	U3h	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-1193
Route group 4	U3h	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-1194
Route group 4	U3h	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-1229
Route group 4	U3h	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0513
Route group 4	U3h	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0514

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 4	U3h	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2132
Route group 4	U3h	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2164
Route group 4	U3h	Butterfield Trail	Transportation	Historic	Trail	Euro-American	Unspecified	1	Determined Eligible		SHPO	173	8/13/1970	WRI-R-3541
Route group 4	U3i	AZ AA:12:148(ASM)	Habitation	Prehistoric	artifact scatter	Hohokam	Rillito and Rincon Phases A.D. 200–1300	1	Unevaluated					WRI-S-1151
Route group 4	U3i	AZ AA:12:99(ASM)	Habitation	Prehistoric	artifact scatter	Hohokam	Ceramic A.D. 950–1450	1	Unevaluated					WRI-S-1177
Route group 4	U3i	AZ AA:12:105(ASM)	Habitation	Prehistoric	artifact scatter w/Features	Hohokam	Late Archaic 1500 B.C.– A.D. 200; Ceramic A.D. 200–1500	1	Determined Eligible	D	SHPO	NA	3/17/2003	WRI-S-1143
Route group 4	U3i	AZ AA:12:321(ASM)	Habitation	Prehistoric	artifact scatter w/features	Hohokam	A.D. 950–1100	1	Unevaluated					WRI-S-1158
Route group 4	U3i	AZ AA:12:96(ASM)	Habitation	Prehistoric	artifact scatter w/features	Hohokam	Early Archaic 8000–4800 B.C.; A.D. 450–1100	1	Determined Eligible	D	SHPO	NA	3/17/2003	WRI-S-1173
Route group 4	U3i	AZ AA:12:315(ASM)	Habitation	Prehistoric	artifact scatter with features	Hohokam and Euro-American	Ceramic A.D. 200–1500; Historic 1500–1950	1	Determined Eligible	D	SHPO	NA	-	WRI-S-1155
Route group 4	U3i	AZ AA:12:46(ASM)	Habitation	Prehistoric	Habitation	Native Archaeological Culture	8000 B.C.– A.D. 1700	1	Unevaluated					WRI-S-1161
Route group 4	U3i	AZ AA:12:746(ASM)	Habitation	Prehistoric	Habitation	Native Archaeological Culture	Ceramic A.D. 200–1500; Prehistoric 1200 B.C.– A.D. 1500	1	Determined Eligible	D	SHPO	NA	2/21/2002	WRI-S-1164
Route group 4	U3i	AZ AA:12:93(ASM)	Habitation	Prehistoric	Habitation	Hohokam	Pioneer through Classic period occupation A.D. 200–1500	1	Determined Eligible	D	SHPO	NA	1/21/2004	WRI-S-1171
Route group 4	U3i	AZ AA:12:56(ASM)	Habitation	Prehistoric	Habitation	Hohokam	Unspecified	1	Unknown					WRI-S-3459
Route group 4	U3i	AZ AA:12:502(ASM)	Habitation	Prehistoric	Habitation Site	Hohokam	Ceramic A.D. 200–1500	1	Unevaluated					WRI-S-1162
Route group 4	U3i	AZ AA:12:300(ASM)	Habitation	Prehistoric	Lithic Procurement	Native Archaeological Culture	Late Archaic 1500 B.C.– A.D. 200, Prehistoric 12,000 B.C.–A.D. 1500	1	Determined Eligible	D	SHPO	NA	7/29/2003	WRI-S-1154
Route group 4	U3i	None	Industrial	Historic	Railroad feature			1	Unevaluated -- Mapped Resource					WRI-M-0538
Route group 4	U3i	None	Industrial	Historic	Railroad feature			1	Unevaluated -- Mapped Resource					WRI-M-1206
Route group 4	U3i	None	Industrial	Historic	Railroad feature			1	Unevaluated -- Mapped Resource					WRI-M-2123
Route group 4	U3i	AZ AA:12:862(ASM)	Limited Activity	Historic	artifact scatter	Euro-American	Historic A.D. 1500–1950	1	Determined Not Eligible		SHPO	NA	6/25/2001	WRI-S-1169
Route group 4	U3i	AZ AA:12:146(ASM)	Limited Activity	Prehistoric	artifact scatter	Hohokam	Rillito and Rincon Phases A.D. 200–1300	1	Unevaluated					WRI-S-1149
Route group 4	U3i	AZ AA:12:672(ASM)	Limited Activity	Prehistoric	artifact scatter	Hohokam	Ceramic A.D. 200–1500	1	Unevaluated					WRI-S-1163
Route group 4	U3i	AZ AA:12:78(ASM)	Limited Activity	Prehistoric	artifact scatter	Hohokam	Ceramic A.D. 200–1500	1	Unevaluated					WRI-S-1166
Route group 4	U3i	AZ AA:12:97(ASM)	Limited Activity	Prehistoric	artifact scatter	Hohokam	Tanque Verde Phase A.D. 1000–1300	1	Unevaluated					WRI-S-1174

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 4	U3i	AZ AA:12:980(ASM)	Ranching	Historic	Effluent Ditch	Euro-American	Historic A.D. 1500–1950	1	Unevaluated					WRI-S-1176
Route group 4	U3i	AZ AA:12:371(ASM)	Structure	Historic	Julian Rodriguez Homestead	Mexican-American	1908	1	Unevaluated					WRI-S-1159
Route group 4	U3i	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-1202
Route group 4	U3i	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-1207
Route group 4	U3i	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-2139
Route group 4	U3i	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-2141
Route group 4	U3i	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-2158
Route group 4	U3i	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-2159
Route group 4	U3i	AZ AA:12:42(ASM)	Structure	Multi	Homestead; artifact scatter	Euro-American; Hohokam	Ceramic 200–1500; Historic A.D. 1500–1950	1	Unevaluated					WRI-S-1160
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0379
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0380
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0381
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0382
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0383
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0384
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0385
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0386
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0387
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0389
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0391
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0393
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0394
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0395
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0396

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0397
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0398
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0399
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0400
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0401
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0402
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0403
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0405
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0406
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0407
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0408
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0409
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0410
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0418
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0420
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0432
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0435
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0437
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0438
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0439
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0440
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0449
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0450
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0555

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0556
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2105
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2111
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2116
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2117
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2118
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2119
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2120
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2121
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2122
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2130
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2131
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2138
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2140
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2156
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2157
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2160
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2161
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2163
Route group 4	U3i	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2171
Route group 4	U3i	Juan Bautista de Anza Route	Transportation	Historic	Trail	Euro-American	Unspecified	1	Unevaluated -- Mapped Resource					WRI-M-3704
Route group 4	U3i	Butterfield Trail	Transportation	Historic	Trail	Euro-American	Unspecified	1	Determined Eligible		SHPO	173	8/13/1970	WRI-R-3541
Route group 4	U3i	AZ AA:11:240(ASM)	Unknown	Unknown	Unknown	Unknown	Unknown	1	Unknown					WRI-S-1141
Route group 4	U3i	AZ AA:12:1064(ASM)	Unknown	Unknown	Unknown	Unknown	Unknown	1	Unknown					WRI-S-1145

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 4	U3i	AZ AA:12:1088(ASM)	Unknown	Unknown	Unknown	Unknown	Unknown	1	Unknown					WRI-S-1146
Route group 4	U3i	None	Utility	Historic	Utility line			1	Unevaluated -- Mapped Resource					WRI-M-0550
Route group 4	U3i	None	Water Control Features	Historic	Canal			1	Unevaluated -- Mapped Resource					WRI-M-2151
Route group 4	U3i	None	Water Control Features	Historic	Well			1	Unevaluated -- Mapped Resource					WRI-M-2162
Route group 4	U3j	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0417
Route group 4	U3j	AZ AA:11:240(ASM)	Unknown	Unknown	Unknown	Unknown	Unknown	1	Unknown					WRI-S-1141
Route group 4	U3k	Los Robles Arch Area (NRHP)	Habitation	Prehistoric	habitation			1	Listed on State and/or Federal Register					WRI-R-3471
Route group 4	U3k	AZ AA:11:12(ASM)	Habitation	Prehistoric	Habitation Site (The Hog Farm site)	Hohokam	Hohokam Classic Period Based on ceramic identification A.D. 1100–1450 Hohokam Colonial Period Based on ceramic identification A.D. 750–950 Prehistoric A.D. 750–1450; Historic A.D. 1500–1950	1	Determined Eligible	D	SHPO	NA	12/8/2003	WRI-S-1137
Route group 4	U3k	None	Industrial	Historic	Railroad feature			1	Unevaluated -- Mapped Resource					WRI-M-0358
Route group 4	U3k	None	Limited Activity	Historic	Fence			1	Unevaluated -- Mapped Resource					WRI-M-0415
Route group 4	U3k	None	Structure	Historic	Structure			1	Unevaluated -- Mapped Resource					WRI-M-2172
Route group 4	U3k	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0356
Route group 4	U3k	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0357
Route group 4	U3k	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0359
Route group 4	U3k	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0360
Route group 4	U3k	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0361
Route group 4	U3k	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0362
Route group 4	U3k	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0363
Route group 4	U3k	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0367
Route group 4	U3k	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0369

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 4	U3k	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0370
Route group 4	U3k	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0371
Route group 4	U3k	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0372
Route group 4	U3k	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0373
Route group 4	U3k	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0374
Route group 4	U3k	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0375
Route group 4	U3k	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0376
Route group 4	U3k	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0377
Route group 4	U3k	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0378
Route group 4	U3k	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0412
Route group 4	U3k	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0413
Route group 4	U3k	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0414
Route group 4	U3k	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0416
Route group 4	U3k	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2106
Route group 4	U3k	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2109
Route group 4	U3k	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2110
Route group 4	U3k	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2124
Route group 4	U3k	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2125
Route group 4	U3k	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2126
Route group 4	U3k	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2128
Route group 4	U3k	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2147
Route group 4	U3k	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2148
Route group 4	U3k	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2149
Route group 4	U3k	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2150

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 4	U3k	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2173
Route group 4	U3k	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2174
Route group 4	U3k	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2175
Route group 4	U3k	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2176
Route group 4	U3k	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2177
Route group 4	U3k	AZ AA:11:131(ASM)	Transportation	Historic	Road/Trail	Euro-American	Late Historic A.D. 1900–1950	1	Unevaluated					WRI-S-1138
Route group 4	U3k	Juan Bautista de Anza Route	Transportation	Historic	Trail	Euro-American	Unspecified	1	Unevaluated -- Mapped Resource					WRI-M-3704
Route group 4	U3k	AZ AA:11:237(ASM)	Unknown	Unknown	Unknown	Unknown	Unknown	1	Unknown					WRI-S-1140
Route group 4	U3k	AZ AA:11:240(ASM)	Unknown	Unknown	Unknown	Unknown	Unknown	1	Unknown					WRI-S-1141
Route group 4	U3k	AZ AA:12:875(ASM)	Utility	Historic	El Paso Natural Gas pipeline No. 1007	Euro-American	1930s	1	Determined Eligible	C, D	SHPO	NA	2/4/2004	WRI-S-1170
Route group 4	U3k	AZ AA:1:95(ASM)	Utility	Historic	Maricopa-Saguaro 115 kV transmission	Euro-American	Late Historic 1948	1	Determined Not Eligible		SHPO	NA	5/14/2002	WRI-S-1136
Route group 4	U3k	None	Water Control Features	Historic	Canal			1	Unevaluated -- Mapped Resource					WRI-M-0366
Route group 4	U3l	None	Industrial	Historic	Railroad feature			1	Unevaluated -- Mapped Resource					WRI-M-2127
Route group 4	U3l	AZ Z:2:40(ASM)	Transportation	Historic	Railroad (Southern Pacific Railroad Mainline - Proponent Alternative)	Euro-American; Asian-American	1877–1880	1	Determined Eligible	A	SHPO	NA	12/5/2003	WRI-S-1442
Route group 4	U3l	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-3934
Route group 4	U3l	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-3935
Route group 4	U3l	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-3936
Route group 4	U3l	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-4438
Route group 4	U3l	AZ AA:2:118(ASM)	Transportation	Historic	State Route 84	Euro-American	Late Historic Constructed ca. 1936 A.D. 1900–1950	1	Determined Eligible	A, D	SHPO	NA	11/14/2003	WRI-S-1187
Route group 4	U3l	Butterfield Trail	Transportation	Historic	Trail	Euro-American	Unspecified	1	Determined Eligible		SHPO	173	8/13/1970	WRI-R-3541
Route group 4	U3l	AZ AA:12:875(ASM)	Utility	Historic	El Paso Natural Gas pipeline No. 1007	Euro-American	1930s	1	Determined Eligible	C, D	SHPO	NA	2/4/2004	WRI-S-1170
Route group 4	U3m	None	Industrial	Historic	Railroad feature			1	Unevaluated -- Mapped Resource					WRI-M-2127
Route group 4	U3m	None	Other	Historic	Compound			18	Unevaluated -- Mapped Resource					WRI-M-4516

Table G-1. Cultural Resources within the Representative Right-of-Way (Continued)

Route	Segment	Agency Number	Site Category	Occupation	Site Type	Culture Type	Affiliation	Resource Count	Eligibility	Criteria	Agency	HPD/Register Numbers	Det. Date	WestLand Number
Route group 4	U3m	AZ Z:2:40(ASM)	Transportation	Historic	Railroad (Southern Pacific Railroad Mainline - Proponent Alternative)	Euro-American; Asian-American	1877–1880	1	Determined Eligible	A	SHPO	NA	12/5/2003	WRI-S-1442
Route group 4	U3m	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-2106
Route group 4	U3m	AZ AA:2:118(ASM)	Transportation	Historic	State Route 84	Euro-American	Late Historic Constructed ca. 1936 A.D. 1900–1950	1	Determined Eligible	A, D	SHPO	NA	11/14/2003	WRI-S-1187
Route group 4	U3m	AZ AA:11:240(ASM)	Unknown	Unknown	Unknown	Unknown	Unknown	1	Unknown					WRI-S-1141
Route group 4	U3m	AZ AA:1:95(ASM)	Utility	Historic	Maricopa-Saguaro 115 kV transmission	Euro-American	Late Historic 1948	1	Determined Not Eligible		SHPO	NA	5/14/2002	WRI-S-1136
Route group 4	U3m	AZ AA:8:366(ASM)	Utility	Historic	Saguaro-Oracle 115kV transmission line	Euro-American	Recent A.D. 1940–Present	1	Determined Not Eligible	A,B,C,D	SHPO	NA	11/25/2002	WRI-S-1188
Route group 4	U4	AZ BB:13:419(ASM)	Limited Activity	Prehistoric	artifact scatter	Native Archaeological Culture	12,000 B.C.–A.D. 1500	1	Unevaluated					WRI-S-1197
Route group 4	U4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0500
Route group 4	U4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0503
Route group 4	U4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0526
Route group 4	U4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					WRI-M-0590
Route group 4	U4	AZ BB:13:542(ASM)	Transportation	Multi	Road with Feature	Unspecified	Unspecified	1	Unevaluated					WRI-S-1203