

Proposed Southline Transmission Line Project

Draft Environmental Impact Statement and Draft Resource Management Plan Amendment

Volume 3 of 4

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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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1 **Appendix A**

2 **CONSTRUCTION WORKFORCE, NEW BUILD AND UPGRADE**
3 **SECTIONS**

1 **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

2 **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

3

1 **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

2

1 **Appendix B**

2 **SUPPLEMENTAL AIR QUALITY INFORMATION**

1 SUPPLEMENTAL AIR QUALITY INFORMATION

2 Laws, Ordinances, Regulations, and Standards

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

6 *Federal*

7 PREVENTION OF SIGNIFICANT DETERIORATION AND CLASS I AND II AREAS

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

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

Pollutant	Averaging Time	PSD Increments Class I ($\mu\text{g}/\text{m}^3$)	PSD Increments Class II ($\mu\text{g}/\text{m}^3$)	SILs Class I ($\mu\text{g}/\text{m}^3$)	SILs Class II ($\mu\text{g}/\text{m}^3$)	Monitoring de Minimis Concentrations ($\mu\text{g}/\text{m}^3$)
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

12 Sources: 40 CFR 52.21(c), 61 *Federal Register* 38249, 40 CFR 51.165(b)(2), 40 CFR 52.21(i)(5)(i).

13 Notes: NA = Not applicable; $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.

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

20 *State and Local Regulations*

21 DOÑA ANA COUNTY

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

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

9 **LUNA COUNTY**

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

13 **COCHISE COUNTY**

14 In Cochise County, no additional County-specific air quality regulations apply. A countywide ordinance
15 (Ordinance 00-030 on Land Clearing (Cochise County 2000)) associated with a permitting program
16 applies to the proposed Project and alternatives. Any activity that includes the clearing of more than
17 1 acre of land is required to have a clearing permit from the County. Controls during construction include
18 dust and erosion control measures during clearing and until revegetation or stabilization has taken place.
19 Dust shall be minimized through the application of generally acceptable dust suppressants and erosion
20 shall be minimized through the application of acceptable BMPs. There are no concrete batch plant
21 specific regulations that apply to Cochise County.

22 **PIMA COUNTY**

23 Pima County has been delegated authority to maintain and operate an air quality control program under a
24 state implementation plan (SIP). The air quality regulations in Pima County are codified in the Pima
25 County Air Quality Control District Code of Regulations, Title 17, Air Quality Control (Pima County
26 2013). The Pima County air quality standards are the same as the AAAQS established by the ADEQ.
27 Specific permitting and emission limitations regulations apply for Class I areas and nonattainment areas.

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

34 **PINAL COUNTY**

35 The air quality regulations in Pinal County are codified in the Pinal County Air Quality Control District
36 Code of Regulations. The Pinal County air quality standards are similar to the AAAQS established by the
37 ADEQ. The County also has dust control regulations, associated with a permitting program (Pinal County
38 2010). A dust registration is required when conducting land stripping and/or earth moving over 0.1 acre.
39 A visible standard of 20 percent applies to opacity emissions. Controls during construction include
40 watering, dust suppressants, wind barriers, covering haul vehicles, reducing speed limits, applying a
41 gravel pad, dislodging debris from trucks prior to leaving the work site, shelter storage piles, altering
42 loading procedures, or other applicable means.

1 **Climate and Meteorology**

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

5 ***New Mexico***

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

15 In January, the coldest month, average daytime temperatures range from the middle 50s in the southern
16 and central valleys to the middle 30s in the higher elevations of the north. Minimum temperatures below
17 freezing are common in all sections of the state during the winter, but subzero temperatures are rare
18 except in the mountains. The lowest temperature recorded at regular observing stations in the state was
19 -50 °F at Gavilan on February 1, 1951. An unofficial low temperature of -57 °F at Ciniza on January 13,
20 1963, was widely reported by the press.

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

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

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

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

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

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

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

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

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

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

28 **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

29

1 **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

2 Notes:

3 Avg. = average

4 Max. = maximum

5 Min. = minimum

6 ^a Source: Western Regional Climate Center, 2011a, Station ID 295079.

7 ^b Source: Western Regional Climate Center, 2011b, Station ID 294799.

8 **Arizona**

9 Cold air masses from Canada sometimes penetrate into the State, bringing temperatures well below zero
 10 in the high plateau and mountainous regions of central and northern Arizona. The lowest readings can dip
 11 to 35 °F below zero. High temperatures are common throughout the summer months at the lower
 12 elevations. Temperatures higher than 125 °F have been observed in the desert area. Great extremes occur
 13 between day and night temperatures throughout Arizona. The daily range between minimum and
 14 maximum temperatures sometimes runs as much as 50 °F to 60 °F during the drier portions of the year.
 15 During winter months, daytime temperatures may average 70 °F, with night temperatures often falling to
 16 freezing or slightly below in the lower desert valleys. In the summer, the pine-clad forests in the central
 17 part of the State may have afternoon temperatures of 80 °F, while night temperatures drop to 35 °F or
 18 40 °F.

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

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

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

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

14 **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

15 Notes:
 16 Avg. = average
 17 Max. = maximum
 18 Min. = minimum
 19 ^a Source: Western Regional Climate Center, 2011c, Station ID 028820.
 20 ^b Source: Western Regional Climate Center, 2011d, Station ID 020680.

1 Background Air Quality

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

5 *New Mexico*

6 Table B-4 presents background air quality monitoring data from local monitoring stations in New Mexico
 7 within or near the air quality analysis area. These monitors report ambient concentrations
 8 of CO, NO₂, SO₂, O₃, and PM₁₀.

9 As discussed, the proposed Project and alternatives pass near the nonattainment area for PM₁₀ next to the
 10 city of Anthony in Doña Ana County. However, the nearest monitors for PM₁₀ to the proposed Project
 11 and alternatives in Doña Ana County (Anthony and Sunland Park) did not reveal recent exceedances
 12 (as late as 2010) of the 24-hour PM₁₀ standard, as shown in table B-4. Additionally, even though Doña
 13 Ana County has been recommended for nonattainment status for O₃, the nearest monitoring locations to
 14 the proposed Project and alternatives within Doña Ana County did not indicate exceedances of the 8-hour
 15 O₃ standard as late as 2010. Additionally, Grant County was identified as a maintenance area for SO₂.
 16 However, the nearest monitoring locations to the proposed Project and alternatives did not reveal
 17 exceedances of the primary or secondary NAAQS for SO₂, as shown in table B-4.

18 **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)

1 **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		

2 Source: EPA (2012).

3 Notes:

4 µg/m³ = micrograms per cubic meter.

5 ppb = parts per billion.

6 **Arizona**

7 Table B-5 presents background air quality monitoring data from local monitoring stations in Arizona
 8 within or near the air quality analysis area. These monitors report ambient concentrations of CO, NO₂,
 9 SO₂, O₃, PM₁₀ and PM_{2.5}. As discussed, the proposed Project and alternatives pass near nonattainment
 10 and maintenance areas for PM₁₀ and SO₂, respectively, in both Cochise County and Pima County.
 11 No exceedances, however, were demonstrated at the nearest monitoring stations to the proposed Project
 12 and alternatives within those respective Counties for the PM₁₀ NAAQS for 2010, as demonstrated in table
 13 B-5. The data either demonstrated compliance (via 2010 Pima County monitoring station data) or no data
 14 were collected (no monitoring locations near the proposed Project or alternatives in Cochise County) with
 15 respect to attainment/nonattainment of the NAAQS for SO₂.

16 Portions of the proposed Project and alternatives could cross the Tucson CO maintenance area located in
 17 Pima County and the San Manuel nonattainment PM₁₀ maintenance area located in Pinal County.
 18 As shown in table B-5, monitoring locations nearest the proposed Project and alternatives in these
 19 Counties did not identify exceedance of the NAAQS for either of these pollutants as recently as 2010.

20 **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		

21

1 **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/m ³	101 µg/m ³	–	2010	Casa Grande/Pinal County
	Annual	–	–	39.4 µg/m ³		

2 **Analysis Assumptions**

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

6 **Emission Inventories**

7 Emissions were calculated to estimate ambient air impacts from construction and, where appropriate,
 8 operation of the transmission lines, substation, and ancillary equipment associated with the Project.
 9 Emission inventories were developed using published and agency-accepted values, such as from emission
 10 factors from AP-42, MOBILE6.2, and NONROAD. PM₁₀ and PM_{2.5} emissions were quantified for
 11 fugitive dust from earth-moving and construction activities that would be associated with construction of
 12 the transmission line and substations, including fugitive dust from concrete batch plant construction and
 13 operation; fugitive dust from vehicles traveling on paved and unpaved roads accessing various segments
 14 of the line route during construction; criteria air pollutants, HAPs, and GHGs resulting from engine
 15 exhaust from worker commutes, delivery trucks, and construction equipment during construction; and SF₆
 16 emissions from operation of the gas-insulated circuit breakers in the switchyards.

1 With the exception of SF₆ emissions from the circuit breakers, Project operational emissions were not
2 quantified. The primary emission sources associated with the operations phase of the transmission lines
3 would include windblown dust from ground disturbance, road dust, and vehicle emissions during periodic
4 maintenance or emergency repair activities. Emission sources would be similar to those from construction
5 activities, but, on an annualized basis, pollutants would be emitted in much smaller amounts. Therefore,
6 the majority of emissions and potential air quality impacts would be associated with the construction of
7 the transmission lines and substations.

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

18 ***Fugitive Dust from Transmission Line, Substation, Access Road,*** 19 ***Construction Yard, and Concrete Batch Plant Construction***

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

- 26 • Estimates of disturbance area, number of disturbed sites, and anticipated workforce for
27 construction of transmission lines, substations, access roads, and batch plants were taken from the
28 “Amended Plan of Development for the Southline Transmission Project” (Southline POD; July
29 2013), as described in chapter 2.
- 30 • Constructed access roads were not assumed to be graveled or paved (Southline POD, July 2013).
- 31 • Driving surfaces less than 14 feet wide would be widened to 14 feet (Southline POD, July 2013).
32 Therefore, these calculations assumed that construction or improvement of access roads would
33 require grading to a width of 14 feet.
- 34 • Emission estimates assumed that the access roads, substations, and temporary construction yards
35 would be graded to a depth of 8 inches.
- 36 • Emission estimates assumed that excavation would not be required at substations, concrete batch
37 plants, or temporary construction yards.

38 ***Fugitive Dust from Travel on Paved and Unpaved Roadways***

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

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

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

3 **Traffic Emissions**

4 MOBILE6.2 emission factors were used to estimate the engine exhaust from worker commute vehicles,
5 trucks transporting construction equipment, and concrete delivery vehicles. The MOBILE6.2 emission
6 factors for commuter vehicles are based on an average of the commuter vehicle emission factors for each
7 county in the year 2013. The MOBILE6.2 emission factors for trucks transporting construction equipment
8 and concrete delivery vehicles are based on emission factors for 2013, which are the same for all the
9 Counties and both States. MOBILE6.2 includes an emission factor for CO₂ to obtain GHG emissions for
10 these activities and an emission factor for HAPs as well.

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

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

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

12 ***Construction Equipment Emissions***

13 NONROAD emission factors were used to estimate the engine exhaust from diesel-fired construction
14 equipment for substation construction, transmission line construction, and concrete batch plant
15 construction. Two sets of NONROAD emission factors were developed for the year 2013—one for
16 Arizona and one for New Mexico, as minimal variation in fuel blends exist between the States.
17 The NONROAD total hydrocarbon emission factor was used for the volatile organic compound (VOC)
18 emission factor. NONROAD includes an emission factor for CO₂ to obtain estimates of GHG emissions
19 for these activities.

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

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

28 ***Concrete Batch Plant Operation Emissions***

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

- 32 • The number of concrete batch plants per subroute was taken from the Southline POD (July 2013),
33 as discussed in chapter 2.
- 34 • The number of cubic yards of concrete for substation construction and transmission line
35 construction in the New Build and Upgrade Sections was taken from the Southline POD (July
36 2013), along with the typical delivery distance of approximately 7 miles (14 miles round trip).
 - 37 ◦ This mileage was used for engine exhaust from concrete delivery trucks for both
38 substation and transmission line construction and travel on paved roads. It was assumed that
39 paved road travel consists of worker commuters, trucks transporting construction equipment,
40 and trucks delivering concrete.
 - 41 ◦ A concrete truck was assumed to carry 10 cubic yards of concrete.

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

8 ***Substation Operation Emissions (Greenhouse Gases)***

9 The emission inventories include GHG estimates from circuit breakers and other high-voltage equipment
10 used in the transmission and distribution system. The Climate Registry Electric Power Sector Protocol
11 was used to develop these emission estimates. The EPA GHG Mandatory Reporting Rule, Subpart DD,
12 was not used for the SF₆ emission estimates because Subpart DD relies on a mass balance in which SF₆
13 emissions are determined by the amount of SF₆ lost each year, which can only be calculated by measuring
14 the added and/or recovered SF₆ to existing equipment. The Climate Registry methodology was therefore
15 used instead to develop SF₆ emission estimates because it provides emission factors based on industry
16 studies and thus can be applied to equipment that does not yet exist to determine estimated annual
17 emissions.

18 SF₆ quantities and leakage rates for the different sizes of circuit breakers were provided in the Southline
19 POD (July 2013). The high end of the leak rate range was used in calculations.

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- 3 ———. 2011d. Period of Record Monthly Climate Summary – Benson, Arizona 020680.
- 4

1 **Appendix C**

2 **SUPPLEMENTAL NOISE AND VIBRATION INFORMATION**

1 SUPPLEMENTAL NOISE AND VIBRATION INFORMATION

2 Terminology and Representative Sound Levels

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

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

14 There are various scales used to measure sounds using decibels. The most common noise metric is the
 15 overall A-weighted sound level measurement (dBA). This metric has been adopted by regulatory bodies
 16 worldwide. The A-weighting network measures sound in a way that is similar to how a person perceives
 17 or hears sound, thus achieving good correlation in terms of how to evaluate acceptable and unacceptable
 18 sound levels. A dBA is typically measured as an average noise level on an equal energy basis for a stated
 19 period of time (equivalent sound level, or L_{eq}), and is commonly used to measure steady-state sound or
 20 noise that is usually dominant. The day-night level, or L_{dn} , is a 24-hour average A-weighted L_{eq} noise
 21 level, where 10 dBA is added to nighttime levels between 10 p.m. and 7 a.m. to account for greater
 22 human sensitivity to nighttime noise levels. For a continuous source that emits the same noise level over a
 23 24-hour period, the L_{dn} will be 6.4 dBA greater than the L_{eq} .

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

26 **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	↕

1 **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	↓

2 Source: Beranek (1988).

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

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

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

18 **Additional Laws, Ordinances, Regulations, and Standards**

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

22 ***Occupational Safety and Health Administration, Occupational Health 23 and Safety Act***

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

1 **Department of Transportation**

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

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

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

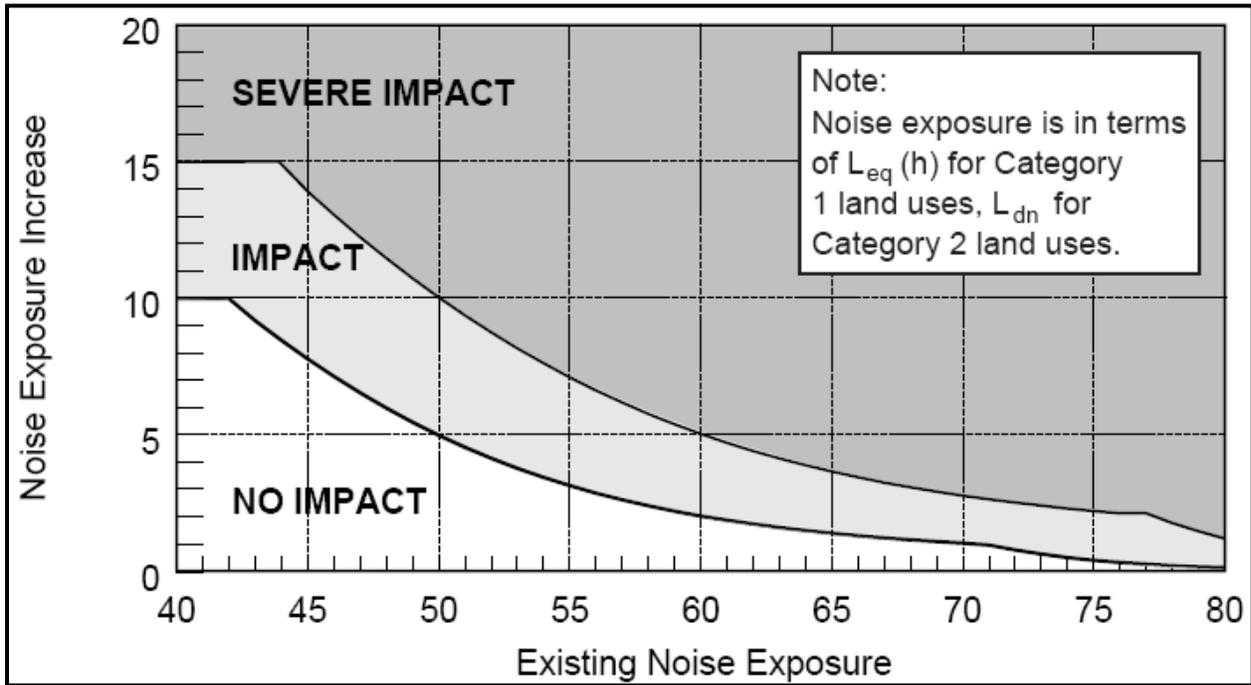
27 **Bureau of Land Management Guidelines**

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

34 **State and Local Regulations**

35 Table C-2 presents noise related laws, ordinances, regulations, and standards that have been adopted for
36 regional, County, and local city level. Pima County, Pinal County, and the City of Sierra Vista in Cochise
37 County, Arizona, have noise regulations that are described in more detail below.
38

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



3
4 **Table C-2.** Applicable Regional and Local Plans, Laws, Ordinances, Regulations, and Standards Related
5 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

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

Jurisdictional	Laws, Ordinances, Regulations, and Standards (LORS)	Project Consistency with LORS
<i>Graham County, Arizona</i>		
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
<i>Greenlee County, Arizona</i>		
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
<i>Pima County, Arizona</i>		
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
<i>Pinal County, Arizona</i>		
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		
<i>City of Deming, New Mexico</i>		
City of Deming Comprehensive Plan Update" (2010)	No noise elements or policies addressing noise standards.	Yes

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

3

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

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

6 **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 to 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.

7 Source: Pima County (1985).

8 Note: Construction start/stop times are requirements unless authorized for other times by a permit.

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

15 **Baseline Noise Levels**

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

20 **Anticipated Noise Levels by Land Use**

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

1 **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

2 Source: Bishop and Schomer (1991).

3 **Baseline Roadway Noise**

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

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

Hourly Vehicle Traffic	Noise Level L _{eq(1-h)} at Distances (dBA)					
	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

1 **Substation Operational Noise**

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

4 **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

5 **Analysis Assumptions**

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

9 Other published noise data can be found in one of the most recent and comprehensive compilations of
 10 construction equipment noise developed in the United States: the Federal Highway Administration’s
 11 (FHWA’s) “Roadway Construction Noise Model (RCNM) User’s Guide” (Final Report, January 2006,
 12 FHWA-HEP-05-054, DOT-VNTSC-FHWA-05-01). The RCNM model includes noise levels for several
 13 categories of construction equipment, the noisiest of which include impact and vibratory pile drivers
 14 (95 dBA at a distance of 50 feet).

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

- 20 • One piece of equipment generating a reference noise level of 85 dBA (at 50 feet distance with a
 21 40 percent usage factor) located on the easement or property line;
- 22 • Two pieces of equipment generating reference 85 dBA noise levels located 50 feet farther away
 23 on the easement or property line; and
- 24 • Two more pieces of equipment generating reference 85-dBA noise levels located 100 feet farther
 25 away on the easement or property line.

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

7
$$\text{Reference Noise Level} - 20 \cdot \log(\text{Distance to Receptor}/50) + 10 \cdot \log(\text{Usage Factor } \%/100)$$

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

10
$$85 \text{ dBA} - 20 \cdot \log(\text{Distance to Receptor}/50) + 10 \cdot \log(40/100)$$

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

14 **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

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

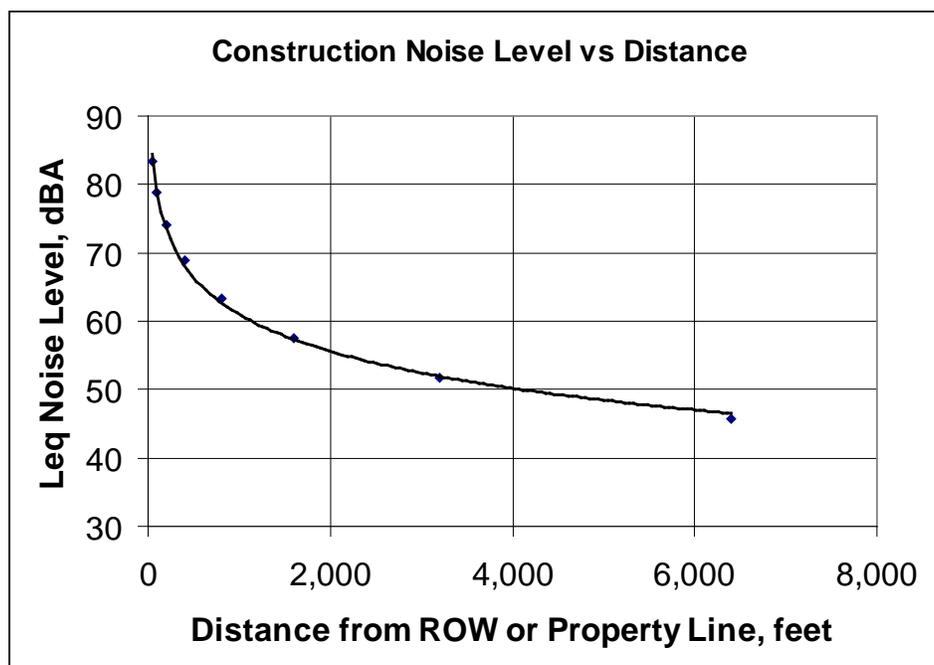
17 **Noise Sensitive Receptors**

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

21 **Route Group 1 – Afton Substation to Hidalgo Substation**

22 The New Build Section of the proposed Project and alternatives between the Afton Substation to Hidalgo
 23 Substation passes by five non-residential noise-sensitive receptors and scattered residential areas,
 24 primarily near the community of Deming. However, this route group is predominantly open space and has
 25 very few noise-sensitive receptors (table C-8).
 26

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



2
 3 **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

4 **Route Group 2 – Hidalgo Substation to Apache Substation**

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

7 **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

1 *Route Group 3 – Apache Substation to Pantano Substation*

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

4 **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

1 **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

2 **Route Group 4 – Pantano Substation to Saguaro Substation**

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

5 **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

6

1 **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

2

1 **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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32

1 **Appendix D**
2 **SPECIAL STATUS PLANT SPECIES**
3 **AND NOXIOUS WEED SPECIES IN THE ANALYSIS AREA**

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**

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)								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 (Pinal)			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).

2

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)			
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 (Dalhousie 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.

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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)			
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)	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.

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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)			
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 within CNF, is outside the highly restricted known geographic range of this species.
Asteraceae	Packera	neomexicana var. toumeyii	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.

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1 **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

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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	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 desert scrub 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.

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1 **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	horizontalonius 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.

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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	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.

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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	thorneri	Thorner's nipple cactus (Thorner 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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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	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.

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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)			
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).

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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)			
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, 2005I). Elevation range 2,140 to 7,425 feet; SEINet collections in Arizona ranged from 5,200 to 7,250 feet (AGFD, 2005I).	Pine-oak woodlands in shady canyon bottoms and open hillsides in leaf litter. Alluvial substrates (AGFD, 2005I).	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 Pinaleno 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.

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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)			
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, Dripping Spring, 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.

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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)			
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	Triteleopsis	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.

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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)							
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.	

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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)			
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

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)			
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.

2

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)			
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 deserts scrub, 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	virteti	Violet 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.

2

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)			
Polygonaceae	Rumex	orthoneurus	Chiricahua Mountain dock (Blumer's dock)			CNF Sensitive, ANPPL Salvage Restricted	State Protected Species (Cochise)				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)				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 <i>Larrea tridentata</i> and <i>Acacia constricta</i> 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).

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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)			
Portulacaceae	Phemeranthus (Talinum)	parvulus (marginatum)	Tepic flame flower			CNF Sensitive, ANPPL Salvage Restricted	State Protected Species (Cochise)				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 range 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.

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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)			
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, Dagoon, Galiuro, Santa Catalina, Santa Theresa, 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.

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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)			
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 Pinaleno 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.

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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
African rue (Syrian rue)	<i>Peganum harmala</i>	x				x	
Alfombilla (Lightningweed)	<i>Drymaria arenarioides</i>	x			x		
Alligator weed	<i>Alternanthera philoxeroides</i>	x					
Anchored water hyacinth	<i>Eichhornia azurea</i>	x					
Austrian fieldcress	<i>Rorippa austriaca</i>	x					
Black henbane	<i>Hyoscyamus niger</i>				x		
Branched broomrape	<i>Orobanche ramosa</i>	x					
Buffelgrass	<i>Cenchrus ciliaris</i>	x	x				
Bull thistle	<i>Cirsium vulgare</i>						x
Burclover	<i>Medicago polymorpha</i>	x	x				
Camelthorn	<i>Alhagi pseudalhagi</i>	x		x			
Canada thistle	<i>Cirsium arvense</i>	x			x		
Carolina horsenettle	<i>Solanum carolinense</i>	x					
Cheatgrass	<i>Bromus tectorum</i>						x
Chicory	<i>Cichorium intybus</i>					x	
Common purslane	<i>Portulaca oleracea</i>	x	x				
Creeping wartcress (Coronopus)	<i>Coronopus squamatus</i>	x					
Crimson fountaingrass	<i>Pennisetum setaceum</i>						x
Dalmatian toadflax	<i>Linaria dalmatica</i>	x		x			
Diffuse knapweed	<i>Centaurea diffusa</i>	x		x			
Dodder	<i>Cuscuta</i> spp.	x		x			
Dudaim melon (Queen Anne's melon)	<i>Cucumis melo</i>	x					
Dyer's woad	<i>Isatis tinctoria</i>	x					x
Eurasian watermilfoil	<i>Myriophyllum spicatum</i>						x
Field bindweed	<i>Convolvulus arvensis</i>	x	x				

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

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

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

Species Common Name	Scientific Name	Arizona			New Mexico			Watch List Species
		Prohibited Species	Regulated Species	Restricted Species	NM Class A	NM Class B	NM Class C	
Plumeless thistle	<i>Carduus acanthoides</i>	x						
Poison hemlock	<i>Conium maculatum</i>					x		
Puna grass	<i>Stipa brachychaeta</i>	x						
Puncturevine	<i>Tribulus terrestris</i>	x	x					
Purple loosestrife	<i>Lythrum salicaria</i>				x			
Purple starthistle	<i>Centaurea calcitrapa</i>	x			x			
Quackgrass	<i>Elytrigia repens</i>	x		x				x
Ravenna grass	<i>Saccharum ravennae</i>				x			
Rush skeletonweed	<i>Chondrilla juncea</i>	x						
Russian knapweed	<i>Acroptilon repens</i>	x		x		x		
Russian olive	<i>Elaeagnus angustifolia</i>						x	
Sahara mustard	<i>Brassica tournefortii</i>							x
Saltcedar	<i>Tamarix</i> spp.						x	
Scotch thistle	<i>Onopordum acanthium</i>	x		x		x		
Serrated tussock	<i>Nassella trichotoma</i>	x						
Siberian elm	<i>Ulmus pumila</i>						x	
Sicilian starthistle	<i>Centaurea sulphurea</i>	x						
Southern sandbur	<i>Cenchrus echinatus</i>	x	x					
Spiny cocklebur	<i>Xanthium spinosum</i>							x
Spotted knapweed	<i>Centaurea biebersteinii</i>	x		x		x		
Squarrose knapweed	<i>Centaurea squarrosa</i>	x						
Sweet resinbush	<i>Euryops subcarnosus</i> subsp. <i>vulgaris</i>	x		x				
Tansy ragwort	<i>Senecio jacobaea</i>	x						
Teasel	<i>Dipsacus fullonum</i>						x	
Texas blueweed	<i>Helianthus ciliaris</i>	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
Three-lobed morning glory	<i>Ipomoea triloba</i>	x		x			
Torpedo grass	<i>Panicum repens</i>	x					
Tree of heaven	<i>Ailanthus altissima</i>				x		
Tropical soda apple	<i>Solanum viarum</i>	x					
Wall rocket	<i>Diploaxis tenuifolia</i>						x
Water-chestnut	<i>Trapa natans</i>	x					
Witchweed	<i>Striga</i> spp.	x					
Yellow starthistle (St. Barnaby's thistle)	<i>Centaurea solstitialis</i>	x		x		x	
Yellow toadflax	<i>Linaria vulgaris</i>					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							

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

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

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

Scientific Name	Common Name
<i>Acacia constricta</i>	Whitethorn acacia
<i>Acacia greggii</i>	Catclaw acacia
<i>Agave palmeri</i>	Palmer's agave
<i>Ambrosia deltoidea</i>	Triangle-leaf bursage
<i>Atriplex canescens</i>	Fourwing saltbush
<i>Baccharis salicifolia</i>	Seepwillow
<i>Baccharis sarothroides</i>	Desert broom
<i>Carnegiea gigantea</i>	Saguaro
<i>Cenchrus ciliaris</i>	Buffelgrass
<i>Chilopsis linearis</i>	Desert willow
<i>Cirsium</i> sp.	Thistle
<i>Condalia ericoides</i>	Javelina bush
<i>Condalia warnockii</i>	Warnock's condalia
<i>Dasyilirion wheeleri</i>	Sotol
<i>Encelia farinosa</i>	Brittlebush
<i>Ephedra</i> sp.	Mormon tea
<i>Erodium cicutarium</i>	Filaree
<i>Ferocactus</i> spp.	Barrel cactus
<i>Flourensia cernua</i>	Tarbush
<i>Fouquieria splendens</i>	Ocotillo
<i>Gutierrezia sarothrae</i>	Broom snakeweed
<i>Hilaria mutica</i>	Tobosagrass
<i>Isocoma tenuisecta</i>	Burroweed
<i>Juniperus</i> sp.	Juniper
<i>Koerberlinia spinosa</i>	Crown of thorns
<i>Larrea tridentata</i>	Creosotebush
<i>Lycium</i> sp.	Wolfberry
<i>Opuntia engelmannii</i>	Engelmann prickly pear
<i>Opuntia fulgida</i>	Chainfruit cholla
<i>Opuntia macrocentra</i>	Long-spined purple prickly pear
<i>Opuntia spinosior</i>	Cane cholla
<i>Nolina microcarpa</i>	Beargrass
<i>Panicum obtusum</i>	Vine mesquite grass
<i>Parkinsonia microphylla</i>	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
<i>Prosopis glandulosa</i>	Honey mesquite
<i>Prosopis velutina</i>	Velvet mesquite
<i>Rhus virens</i> var. <i>coriophylla</i>	Evergreen sumac
<i>Rumex hymenosepalus</i>	Canaigre
<i>Salix gooddingii</i>	Goodding's willow
<i>Salsola tragus</i>	Russian thistle
<i>Senecio</i> sp.	Senecio
<i>Sporobolus wrightii</i>	Big sacaton
<i>Tamarix</i> sp.	Tamarisk
<i>Vachellia vernicosa</i>	Viscid acacia
<i>Yucca baccata</i>	Banana yucca
<i>Yucca elata</i>	Soaptree yucca
<i>Ziziphus obtusifolia</i>	Graythorn

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1 **Appendix E**

2 **FEDERAL ENDANGERED SPECIES ACT**
3 **LISTED SPECIES IN THE ANALYSIS AREA**

1 **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) (<i>Hyla wrightorum</i>)	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 (<i>Lithobates [Rana] chiricahuensis</i>)	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 (<i>Ambystoma mavortium stebbinsi</i>)	Amphibian	Endangered (Cochise)							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 (<i>Glaucidium brasilianum cactorum</i>)	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 (<i>Sterna antillarum browni</i>)	Bird	Endangered (Pima)	Yes										Breeding documented in Maricopa County, while transient migrants have been recorded in Pima and Mojave counties, Arizona (FWS 2009aa). Elevations below 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.	

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1 **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) (<i>Sterna antillarum</i>)	Bird	Endangered (Doña Ana)	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 (<i>Colinus virginianus ridgewayi</i>)	Bird	Endangered (Pima)								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 (<i>Strix occidentalis lucida</i>)	Bird	Threatened (Grant, Hidalgo, Cochise, Pima, Pinal)	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 (<i>Falco femoralis septentrionalis</i>)	Bird	Endangered/Experimental, Non-essential Population (Doña Ana, Grant, Hidalgo, Luna, Cochise)	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 (<i>Empidonax traillii extimus</i>)	Bird	Endangered (Doña Ana, Grant, Hidalgo, Luna, Greenlee, Graham, Cochise, Pima, Pinal)	Yes							AGFD Tier 1a, NMDGF	Endangered	PVS	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.

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1 **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 (<i>Anthus spragueii</i>)	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 (<i>Coccyzus americanus occidentalis</i>)	Bird	Proposed Threatened (Greenlee, Graham, Cochise, 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 (<i>Grus americana</i>)	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 (<i>Rallus longirostris yumanensis</i>)	Bird	Endangered (Pinal)	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 (<i>Oncorhynchus gilae apache</i>)	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.	

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1 **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 (<i>Cyprinella formosa</i>)	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 (<i>Gila nigrescens</i>)	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 (<i>Cyprinodon macularius</i>)	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.

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1 **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 (<i>Gila intermedia</i>)	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 (<i>Salix</i> spp.), tamarisk (<i>Tamarix</i> spp.), cottonwoods (<i>Populus</i> spp.), seep-willow (<i>Baccharis glutinosa</i>), and ash (<i>Fraxinus</i> spp.). Typical aquatic vegetation includes watercress (<i>Nasturtium officianale</i>), horsetail (<i>Equisetum</i> spp.), rushes (<i>Juncus</i> spp.), and speedwell (<i>Veronica anagallis-aquatica</i>) (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 (<i>Poeciliopsis occidentalis occidentalis</i>)	Fish	Endangered (Grant, Cochise, Pima, 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 (<i>Oncorhynchus gilae gilae</i>)	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.

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1 **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 (<i>Gila nigra</i>)	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 (<i>Tiaroga cobitis</i>)	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 (<i>Xyrauchen texanus</i>)	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 (<i>Hybognathus amarus</i>)	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.

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1 **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 (<i>Gila robusta</i>)	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 (<i>Meda fulgida</i>)	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 (<i>Ictalurus pricei</i>)	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 (<i>Gila purpurea</i>)	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 banks 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 (<i>Poeciliopsis occidentalis sonoriensis</i>)	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.

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1 **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 (<i>Ashmunella macromphala</i>)	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 (<i>Sonorella todseni</i>)	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 (<i>Pyrgulopsis thompsoni</i>)	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 (<i>Pyrgulopsis bernardina</i>)	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 (<i>Sonorella eremita</i>)	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 (<i>Sonorella macrophallus</i>)	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 <i>Sonorella</i> 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 (<i>Mustela nigripes</i>)	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.

1 **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 (<i>Panthera onca</i>)	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 (<i>Leptonycteris curasoae yerbabuena</i>)	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 (<i>Canis lupus baileyi</i>)	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.

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1 **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 (<i>Leptonycteris nivalis</i>)	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 (<i>Tamiascurus hudsonicus grahamensis</i>)	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 (<i>Zapus hudsonius luteus</i>)	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 (<i>Leopardus [Felis] pardalis</i>)	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 (<i>Antilocapra americana sonoriensis</i>)	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.	

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1 **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 (<i>Crotalus willardi obscurus</i>)	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 (<i>Thamnophis eques megalops</i>)	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 (<i>Gopherus agassizii morafkai</i>)	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 (<i>Kinostemon sonoriense longifermorale</i>)	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 (<i>Chionactis occipitalis klauberi</i>)	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.

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

Species Common Name (Scientific [Latin] Name)	Species Group	Afton to Hidalgo			Hidalgo to Apache							Apache to Pantano		Pantano to Saguaro					
		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 (<i>Strix occidentalis lucida</i>)	Bird	None	None	None	None	None	None	None	None	None	None	None	Unlikely	None	None	None	None	None	
Sonoran desert tortoise (<i>Gopherus [agassizii] morafkai</i>)	Reptile	None	None	None	Unlikely	Unlikely	None	None	None	None	None	None	Possible	Possible	Possible	N/A	Possible	Possible	Unlikely
Western yellow-billed cuckoo (<i>Coccyzus americanus occidentalis</i>)	Bird	None	None	None	None	None	None	None	None	None	None	None	Possible	None	Possible	Possible	None	None	None
Northern Mexican gartersnake (<i>Thamnophis eques megalops</i>)	Reptile	None	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 (<i>Anthus spragueii</i>)	Bird	Possible	Possible	Possible	Possible	Possible	Unlikely	Possible	Possible	Possible	Possible	Possible	Possible	Possible	Unlikely	Unlikely	Unlikely	Unlikely	None
Cactus ferruginous pygmy-owl (<i>Glaucidium brasilianum cactorum</i>)	Bird	None	None	None	None	None	None	None	None	None	None	None	None	None	Possible	Possible	Possible	Possible	None
Southwestern willow flycatcher (<i>Empidonax traillii extimus</i>)	Bird	None	None	None	Possible	Possible	Unlikely	Unlikely	Unlikely	Unlikely	Unlikely	Unlikely	Possible	None	Possible	Possible	None	None	None
Lesser long-nosed bat (<i>Leptonycteris curasoae yerbabuena</i>)	Mammal	None	None	None	Possible	Possible	Possible	Possible	Possible	Possible	Possible	Possible	Possible	Possible	Possible	Possible	None	None	None
Northern aplomado falcon (<i>Falco femoralis septentrionalis</i>)	Bird	Possible	Possible	Possible	Possible	Possible	Unlikely	Possible	Possible	Possible	None	None	None	None	None	None	None	None	None
Tucson shovel-nosed snake (<i>Chionactis occipitalis klauberi</i>)	Reptile	None	None	None	None	None	None	None	None	None	None	None	None	None	Unlikely	Unlikely	None	None	Unlikely
Ocelot (<i>Leopardus [Felis] pardalis</i>)	Mammal	None	None	None	Unlikely	Unlikely	Unlikely	Unlikely	Unlikely	Unlikely	None	None	Unlikely	None	Unlikely	Unlikely	None	None	None
Least tern (Interior population) (<i>Sterna antillarum</i>)	Bird	Unlikely	Unlikely	Unlikely	Unlikely	Unlikely	Unlikely	Unlikely	Unlikely	Unlikely	Unlikely	Unlikely	None	None	None	None	None	None	None
Gila chub (<i>Gila intermedia</i>)	Fish	None	None	None	None	None	None	None	None	None	None	None	Unlikely	None	Unlikely	Unlikely	None	None	None
Gila topminnow (<i>Poeciliopsis occidentalis occidentalis</i>)	Fish	None	None	None	None	None	None	None	None	None	None	None	Unlikely	None	Unlikely	Unlikely	None	None	None
Jaguar (<i>Panthera onca</i>)	Mammal	None	None	None	None	None	None	None	None	None	None	None	Unlikely	None	Unlikely	Unlikely	None	None	None
California least tern (<i>Sterna antillarum browni</i>)	Bird	None	None	None	None	None	None	None	None	None	None	None	None	None	Unlikely	Unlikely	None	None	None
Chiricahua leopard frog (<i>Lithobates [Rana] chiricahuensis</i>)	Amphibian	None	None	None	Possible	Possible	Unlikely	Unlikely	Unlikely	Unlikely	Unlikely	Unlikely	Unlikely	None	Unlikely	Unlikely	None	None	None

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1 **Appendix F**

2 **NATIONAL SCENIC AND HISTORIC TRAILS ASSESSMENT**

1 NATIONAL SCENIC AND HISTORIC TRAILS ASSESSMENT

2 3 INTRODUCTION

4 National Scenic Trails (NSTs) and National Historic Trails (NHTs) are part of the National Trails System,
5 which is a network of scenic, historical, and recreational trails created by the National Trails System Act
6 of 1968 (16 United States Code [USC] 1241–1251). NSTs and NHTs are authorized and designated only
7 by Act of Congress. NSTs are continuous and uninterrupted extended trails more than 100 miles long, so
8 located as to provide for maximum enjoyment of the nationally significant resources, qualities, values,
9 and associated settings as the primary use or uses of the area through which such trails may pass. The use
10 of motorized vehicles by the general public along any NST is prohibited (16 USC 1246). NSTs may
11 provide non-motorized routes with outstanding recreational opportunities. NHTs commemorate historic
12 routes of exploration, migration, trade, communication, and military action (National Park Service [NPS]
13 2013), and must meet three criteria: 1) follow as closely as possible the actual route of historic use, 2) be
14 of national significance, and 3) have significant potential for public recreation and/interpretation
15 opportunities (16 USC 1242).

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

26 REGULATORY FRAMEWORK

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

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

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

3 BLM implementation of the requirements established by the National Trails System Act can be found in
4 the agency's National Trails System manual series—BLM Manuals 6250, 6280, and 8353 (BLM 2012a,
5 2012b, 2012c). These manuals provide administrative and management guidance.

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

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

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

- 35 (i) For each alternative, describe and analyze the potential impacts to the nature and purposes of
36 the National Trail, and the National Trail resources, qualities, values, and associated settings
37 and the primary use or uses of the trail.
- 38 (ii) Describe the impacts to the national significance of National Trails, based on NHPA National
39 Historic Landmark criteria and other National Trails System Act criteria, as well as impacts
40 to the significance of properties that are eligible or listed on the National Register of Historic
41 Places (NRHP), as applicable.
- 42 (iii) Ensure adequate public involvement in the BLM's management activities through the NEPA,
43 land use planning, and/or other applicable processes.

- 1 (iv) Coordinate with the National Trail administering agency during the environmental review
2 and land use planning processes regarding the establishment of the National Trail
3 Management Corridor. It should be noted that no National Trail Management Corridors were
4 established for the proposed Project in context with this appendix. However, a study corridor
5 (analysis area) was developed to inventory and assess impacts to National Trails in terms of
6 resource, values, qualities, and associated settings. The analysis area was established in
7 consultation with the Trails “Stakeholder Group,” which consisted of agency trail
8 administrators, agency resource specialists, and public trail groups.
- 9 (v) To the greatest extent possible, consider opportunities for mitigation to a level commensurate
10 with the adverse impact to the nature and purposes; resources, qualities, values, and
11 associated settings; and the primary use or uses of the National Trail.
- 12 (vi) Include the following in the Decision Record or Record of Decision:
- 13 (a) Whether the proposed Project will substantially interfere or will be incompatible with the
14 nature and purposes of the National Trail, including the resources, qualities, values, or
15 associated settings, or the primary use or uses.
- 16 (b) A description of the action taken to authorize or deny an activity or the application of any
17 best management practices or mitigation measures (BLM 2012b).

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

- 24 (i) Describe the values, characteristics, and settings of trails under study and trails recommended
25 as suitable in the affected environment section of the NEPA document.
- 26 (ii) Analyze and describe any impacts of the proposed Project on the values, characteristics, and
27 settings of trails under study or trails recommended as suitable.
- 28 (iii) Consider an alternative that would avoid adverse impacts to the values, characteristics, and
29 settings of the trail under study or recommended as suitable and/or incorporate and consider
30 applying design features to avoid adverse impacts.
- 31 (iv) When the proposed Project is anticipated to have a significant adverse impact, there must be
32 coordination between the BLM State Office and the assigned National Trail Feasibility Study
33 agency office. If the anticipated significant adverse impact cannot be avoided, the BLM State
34 Office must contact the BLM Washington Office so that coordination with the study agency
35 headquarters office can be initiated (BLM 2012b).

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

- 37 • *Federal Land Policy and Management Act of 1976, as amended* (43 USC 1701; Public Law [PL]
38 94-579). The FLPMA consolidates and articulates BLM management responsibilities and governs
39 most uses of federal lands, including authorization to grant or renew rights-of-way. In accordance
40 with the FLPMA, the BLM must make land use decisions based on principles of multiple use and
41 sustained yield. As such, a grant of right-of-way (ROW) must be limited to its necessary use and
42 must contain terms and conditions that reflect the agencies’ management responsibilities under
43 the FLPMA, including minimizing impacts on fish and wildlife habitat.

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

18 **ISSUES IDENTIFIED FOR ANALYSIS**

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

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

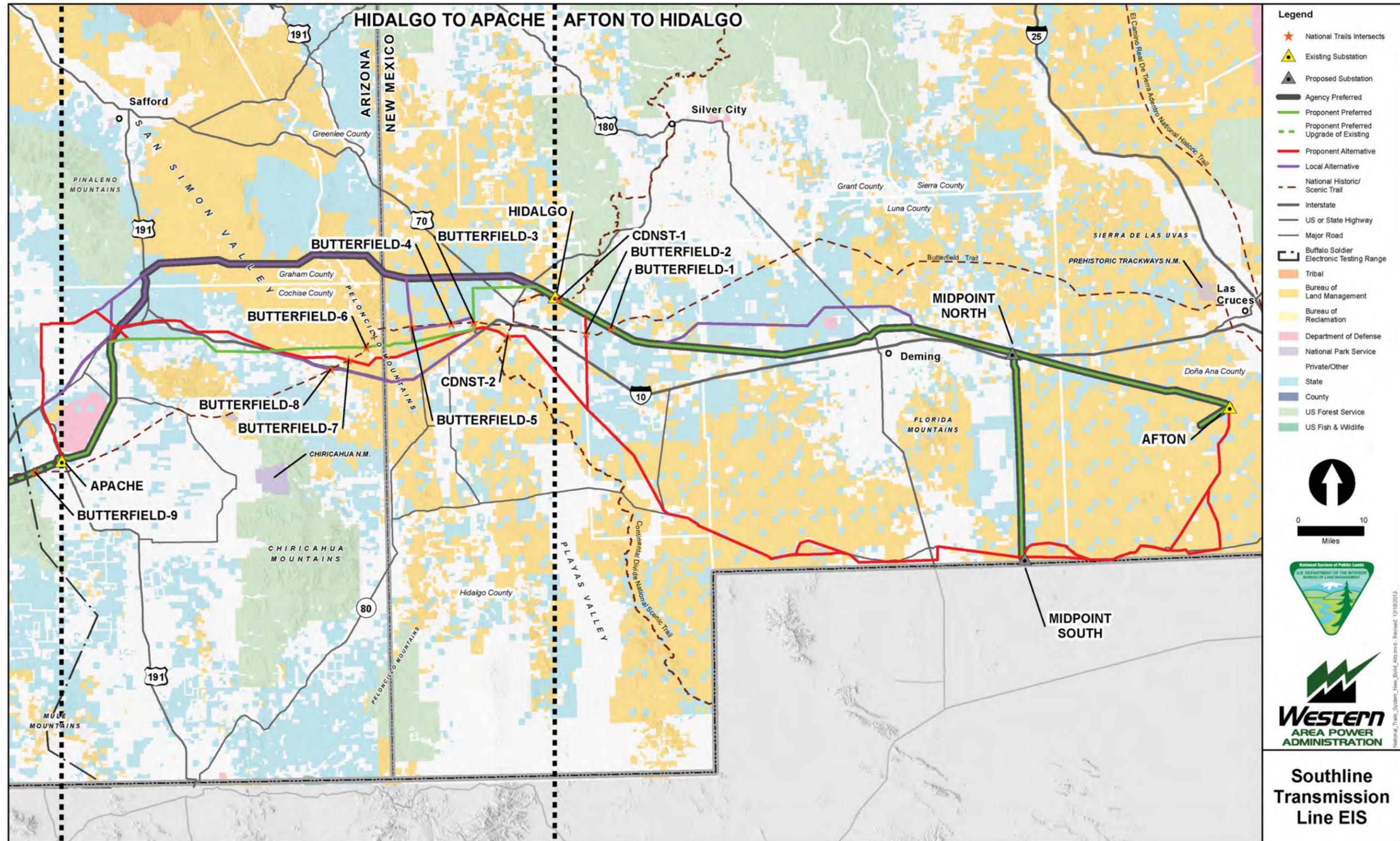
28 **National Scenic Trails**

29 ***Continental Divide National Scenic Trail***

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

1

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

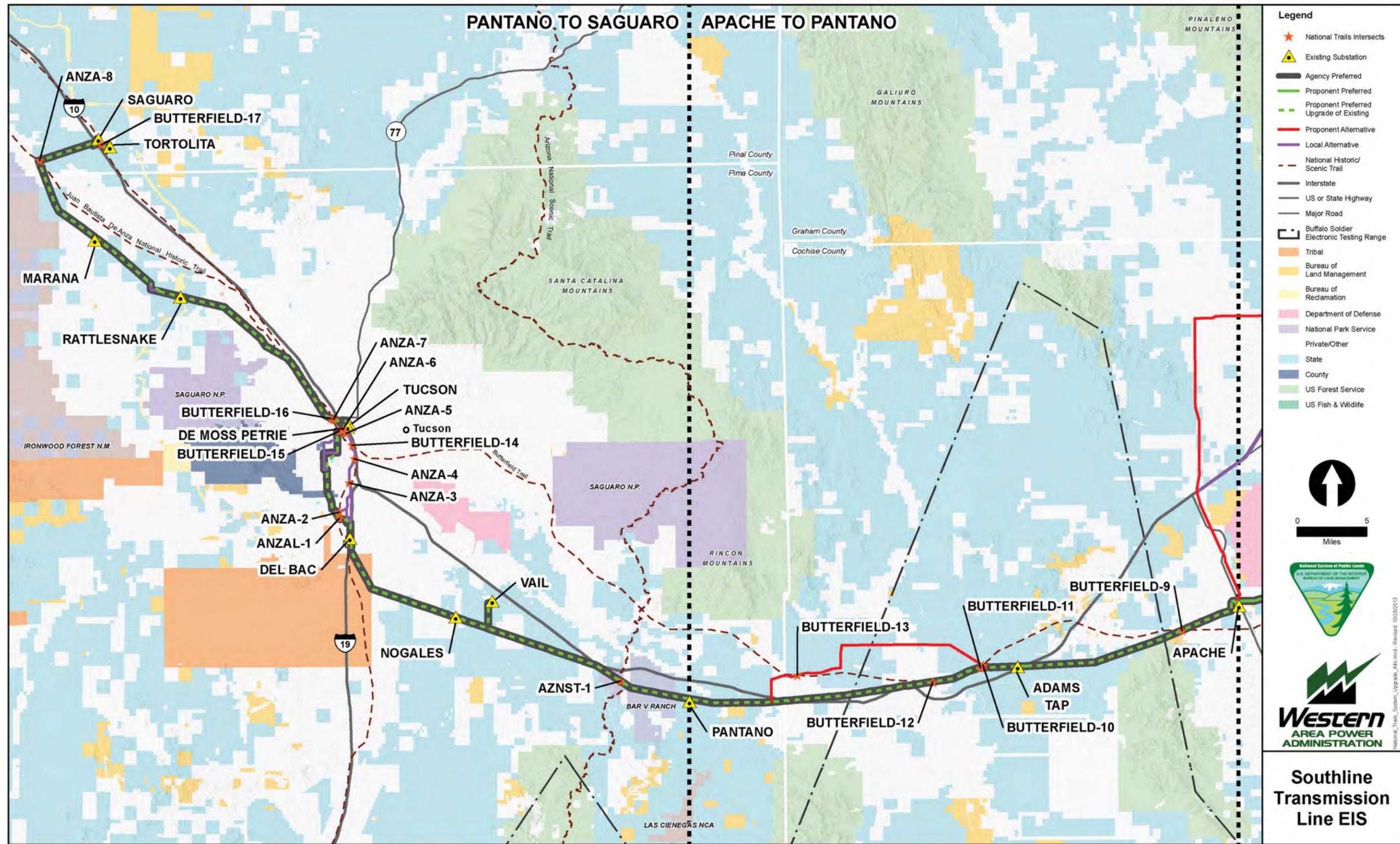


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Figure F-2. Upgrade Section National Trails System.



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3

1 **Arizona National Scenic Trail**

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

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

19 **National Historic Trails**

20 ***Juan Bautista de Anza National Historic Trail***

21 The Juan Bautista de Anza National Historic Trail (Anza Trail) commemorates the route taken by Anza in
22 1775–1776, when he led a group of colonists from Mexico to found a presidio and mission for New Spain
23 at San Francisco Bay. Established in 1990, this congressionally designated historic trail administered by
24 the NPS is approximately 1,200 miles long, extending from Nogales, Arizona to San Francisco,
25 California (NPS 1996). For lands outside NPS units, local land managers and property owners take the
26 lead in implementing the trail and coordinate interpretation with the NPS. The Anza Trail is associated
27 with the following three components:

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

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

1 Trails Recommended as Suitable for National Trail 2 Designation

3 *Butterfield Overland Mail and Stage Route*

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

17 ANALYSIS METHODOLOGY

18 Introduction

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

- 33 • Planning-level Data
 - 34 ◦ Visual Resource Inventory (VRI)
 - 35 ▪ Scenic Quality Rating Units (SQRU)
 - 36 ▪ Sensitivity Level Rating Unit (SLRU)
 - 37 ▪ Visual Distance Zone
 - 38 ◦ National Historic Trail federal protection components
 - 39 ▪ High-potential route segments
 - 40 ▪ High-potential historic sites

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

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

21 **Inventory (Affected Environment)**

22 ***Trail Components***

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

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

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

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

34 ***Viewshed Analysis***

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

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

12 **SCENIC RESOURCES**

13 **Visual Resource Inventory – Bureau of Land Management Resource Management** 14 **Plans**

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

26 **Scenic Quality**

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

41 **Sensitivity Level Rating Units**

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

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

4 **Distance Zones**

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

9 **HISTORIC AND CULTURAL RESOURCES**

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

16 **RECREATION**

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

- 21 • BLM RMPs concerning recreation resources, visual resources, cultural resources, and special
22 management areas, including special recreation management areas, designated off-highway
23 vehicle areas, Wilderness Study Areas, and other authorized land uses that could specifically
24 pertain to National Trails
- 25 • New Mexico and Arizona State Parks and Fish and Game Departments
- 26 • City and County land use plans
- 27 • Aerial imagery
 - 28 ◦ Digital Globe Satellite Imagery
 - 29 ◦ ESRI[®]

30 **NATURAL RESOURCES**

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

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

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

7 **Other Landscape Elements**

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

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

30 **Setting Description**

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

37 **Impact Assessment Methodology**

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

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

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

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

Intensity of Impacts	Criteria for Assessing Intensity of Impacts
High	<ul style="list-style-type: none"> - Scenic Resources <ul style="list-style-type: none"> - 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 <ul style="list-style-type: none"> - 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 <ul style="list-style-type: none"> - 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 <ul style="list-style-type: none"> - 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 <ul style="list-style-type: none"> - 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.

19

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

Intensity of Impacts	Criteria for Assessing Intensity of Impacts
Moderate	<ul style="list-style-type: none"> - Scenic Resources <ul style="list-style-type: none"> - 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 <ul style="list-style-type: none"> - 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 <ul style="list-style-type: none"> - 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 <ul style="list-style-type: none"> - 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 <ul style="list-style-type: none"> - 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	<ul style="list-style-type: none"> - Scenic Resources <ul style="list-style-type: none"> - 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 <ul style="list-style-type: none"> - 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 <ul style="list-style-type: none"> - 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 <ul style="list-style-type: none"> - 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 <ul style="list-style-type: none"> - 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.

2
3
4 * 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."

5 **Initial Impacts**

6 The intensity of a potential impact on the trail's nature and purpose, and resources, qualities, values,
 7 associated settings, and primary use or uses would be used as the basis for assessing initial impacts.

8 The detailed methods to determine initial impacts are consistent with agency-approved analysis methods
 9 for the National Trails, as well as visual resources, land use and recreation, cultural resources, and

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

9 **MITIGATION PLANNING AND RESIDUAL IMPACTS**

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

24 ***Cumulative Effects***

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

36 **TRAIL RESOURCES, QUALITIES, VALUES, ASSOCIATED SETTINGS, AND** 37 **PRIMARY USE OR USES**

38 1. Scenic and Visual Resources

- 39 a. Cumulative effects of the incremental modification to the integrity of the associated settings and
40 scenic values for which the National Trail was designated
- 41 b. Cumulative effects to the naturally appearing landscapes associated with the NST or NHT,
42 regardless of scenic quality rating

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

22 REGIONAL SETTING

23 National Scenic Trails

24 *Continental Divide National Scenic Trail*

25 In southwestern New Mexico, the CDNST follows a route that ranges in elevation from approximately
26 4,200 to 8,050 feet above mean sea level (amsl) within the Mexican Highland and Datil subdivisions of
27 the Basin and Range and Colorado Plateau physiographic provinces, respectively (Fenneman 1931).
28 The Basin and Range Province is characterized by its isolated, roughly parallel mountain ranges separated
29 by closed (undrained) desert basins. The mountain ranges often run 50 to 70 miles in length and generally
30 trend north-south. The Mexican Highland subdivision is also characterized by basin and ranges and
31 intervening desert plains; however, most of the area has external drainage as opposed to draining
32 internally to basins or bolsons. Mexican Highland vegetation is characterized by creosote, cacti, and
33 yucca at lower elevations, whereas sagebrush and greasewood are dominant at elevations higher than
34 3,500 feet amsl. The Datil subdivision of the Colorado Plateau contains a greater number of domed,
35 volcanic features than elsewhere in the province and includes the San Mateo, Magdalena, and Black
36 Mountain ranges. This subdivision is characterized by prairie grasslands and rolling piñon-juniper
37 woodland, although the transition between Basin and Range to Colorado Plateau is not distinct. Most of
38 the CDNST in southwestern New Mexico follows the ridgelines of these mountains and foothills, which
39 contain semi-desert grassland vegetation characterized by grasses, shrubs, succulents, and juniper trees

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

4 ***Arizona National Scenic Trail***

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

16 **National Historic Trails**

17 ***Juan Bautista de Anza National Historic Trail***

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

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

29 **Trails Recommended as Suitable for National Trail** 30 **Designation**

31 ***Butterfield Overland Mail and Stage Route***

32 Similar to the Anza Trail, the Butterfield Trail traverses the Basin and Range province in New Mexico
33 and Arizona. The Butterfield Trail crosses through the Mexican Highland subdivision of this province in
34 New Mexico and the Sonoran Desert in Arizona. These subdivisions are characterized by smaller
35 mountain ranges, rock pediments (sloping solid rock), and basins that typically have external drainage as
36 opposed to draining internally to basins and bolsons. Mexican Highland vegetation is characterized by
37 creosote, cacti, and yucca at lower elevations, whereas sagebrush is dominant at elevations higher than
38 3,500 feet amsl. Vegetation associated with the Sonoran Desert includes a variety of cacti and succulents;
39 however, creosote is common mixed with brittlebrush and other lowland desert shrubs. The Sonoran
40 Desert Uplands are typically characterized by a variety of tree species, including paloverde, ironwood,

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

8 **INVENTORY RESULTS**

9 **National Scenic Trails**

10 ***Continental Divide National Scenic Trail***

11 **NATURE AND PURPOSE**

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

22 **RESOURCES, QUALITIES, AND VALUES, AND ASSOCIATED SETTINGS**

23 **Scenic Resources**

24 ***Scenic Quality Rating Units***

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

31 ***Sensitivity Level Rating Units***

32 The majority of the CDNST analysis area is associated with high sensitivity, which includes the I-10
33 corridor. Areas associated with moderate sensitivity include the Big Burro Mountains. Low sensitivity
34 lands generally occur in flat valley areas with few local travel routes north of Lordsburg.
35

1 **Distance Zones**

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

5 **Historic and Cultural Resources**

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

9 **Recreation**

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

21 **Natural Resources**

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

30 **Other Landscape Elements**

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

40 **Setting Description**

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

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

13 **PRIMARY USE(S)**

14 The primary use of the CDNST is to provide recreational opportunities of national significance, as the
15 3,100-mile trail traverses from Mexico to Canada. The Comprehensive Plan identifies the CDNST as a
16 trail for users to enjoy a greater diversity of physical, social, and managerial settings than found on any
17 other extended NST.

18 **NATIONAL TRAIL RIGHT-OF-WAY AND MANAGEMENT CORRIDOR**

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

27 **NATIONAL TRAIL–RELATED NATIONAL REGISTER OF HISTORIC PLACES** 28 **PROPERTIES**

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

30 ***Arizona National Scenic Trail***

31 **NATURE AND PURPOSE**

32 Because the Arizona Trail has not been described in a trail feasibility study, comprehensive plan, or CMP,
33 the nature and purpose of the trail have yet to be defined in Federal policy. However, references to the
34 trail in its 2009 congressional designation emphasize its intention as a non-motorized, multi-use
35 recreational trail, in a manner consistent with the National Trails System Act of 1968. Senate Report 110-
36 290 on S. 1304 (The Arizona National Scenic Trail Act), April 10, 2008, describes the Arizona Trail’s
37 background and need: “The trail is intended to be a primitive, long distance trail that highlights the State’s
38 topographic, biologic, historic, and cultural diversity.” In support of this designation, U.S. Senator John
39 McCain (AZ) referred to the “rugged, spectacular scenery” and “the wide range of ecological diversity in
40 the state” found along the trail, lending his support to its designation as an NST in order to “ensure the
41 preservation of a corridor of open space.”
42

1 **RESOURCES, QUALITIES, AND VALUES, AND ASSOCIATED SETTINGS**

2 **Scenic Resources**

3 ***Scenic Quality Rating Units***

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

15 ***Sensitivity Level Rating Units***

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

17 ***Distance Zones***

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

20 ***Historic and Cultural Resources***

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

28 ***Recreation***

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

31 The portion of the Arizona Trail that occurs within the analysis area near Vail receives among the highest
32 amount of use trailwide because of the close proximity to the Tucson metropolitan area and other
33 recreation attractions such as Cienega Creek National Conservation Area, Colossal Cave, Saguaro
34 National Park, and the Rincon Mountains Wilderness. The trail alignment passes through Colossal Cave
35 Mountain Park (a Pima County recreation area), and trail users can access the cave by following a
36 connecting unpaved road for approximately 1 mile. Other developed recreation facilities within this park
37 include picnic areas and La Posta Quemada Ranch, which is a day ranch for horseback riding. Cienega
38 Creek Natural Preserve is a Pima County recreation area that requires a permit to enter (refer to section
39 3.14 of this DEIS). The Gabe Zimmerman Davidson Canyon trailhead provides parking and access to the
40 preserve, as well as access to the Arizona Trail, which traverses the preserve. Use of the trail is common
41 in this area by birders, hikers, and equestrians, as well as by mountain bikers who commonly travel from

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

7 ***Natural Resources***

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

21 ***Other Landscape Elements***

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

30 ***Setting Description***

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

41 **PRIMARY USE(S)**

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

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

4 **NATIONAL TRAIL RIGHT-OF-WAY AND MANAGEMENT CORRIDOR**

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

7 **NATIONAL TRAIL–RELATED NATIONAL REGISTER OF HISTORIC PLACES** 8 **PROPERTIES**

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

11 **National Historic Trails**

12 ***Juan Bautista de Anza National Historic Trail***

13 **NATURE AND PURPOSE**

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

20 **RESOURCES, QUALITIES, AND VALUES, AND ASSOCIATED SETTINGS**

21 **Scenic Resources**

22 ***Scenic Quality Rating Units***

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

27 ***Sensitivity Level Rating Units***

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

29 ***Distance Zones***

30 The Anza Trail analysis area occurs within the foreground-midground distance zone. Viewers
31 associated with this distance zone are based primarily on travel route viewers along 1-10 and local Tucson
32 streets.
33

1 **Historic and Cultural Resources**

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

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

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

18 **Recreation**

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

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

36 **Natural Resources**

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

1 **Other Landscape Elements**

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

8 **Setting Description**

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

17 **PRIMARY USE(S)**

18 As defined in the CMP, “management objectives for visitor experience emphasize promotion of public
19 understanding, appreciation, and enjoyment of the Anza Trail and outdoor recreation” (NPS 1996:2).
20 These objectives are obtained by conveying the experience of the colonists in settings similar to those of
21 1775, providing accurate interpretation at certified locations, and linking historic sites and trail segments
22 with a recreational trail and an auto route.

23 **NATIONAL TRAIL RIGHT-OF-WAY AND MANAGEMENT CORRIDOR**

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

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

31 **NATIONAL TRAIL–RELATED NATIONAL REGISTER OF HISTORIC PLACES**
32 **PROPERTIES**

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

34 **Trails Recommended as Suitable for National Trail**
35 **Designation**

36 ***Butterfield Overland Mail and Stage Route (Historic)***

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

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

4 **VALUES, CHARACTERISTICS, AND SETTINGS**

5 **Scenic Resources**

6 ***Scenic Quality Rating Units***

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

16 ***Sensitivity Level Rating Units***

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

22 ***Distance Zones***

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

25 ***Historic and Cultural Resources***

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

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

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

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

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

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

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

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

39 ***Recreation and Other Resources***

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

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

3 ***Setting Description***

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

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

29 **IMPACT ANALYSIS RESULTS**

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

35 **Route Group 1: Afton Substation to Hidalgo Substation**

36 ***National Historic Trails***

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

1 **National Scenic Trails**

2 **CONTINENTAL DIVIDE NATIONAL SCENIC TRAIL**

3 **Subroute 1.1**

4 ***Scenic and Recreation Resources***

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

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

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

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

33 ***Historic and Cultural Resources***

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

36

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/midground; 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).

1 **Route Group 1 Summary**

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

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

9 **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

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

2 **Route Group 2: Hidalgo Substation to Apache Substation**

3 ***National Historic Trails***

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

5 ***National Scenic Trails***

6 **CONTINENTAL DIVIDE NATIONAL SCENIC TRAIL**

7 **Route Group 1 Local Alternatives**

8 ***Scenic and Recreation Resources***

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

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

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

14 ***Historic and Cultural Resources***

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

17 ***Trails Recommended as Suitable for National Trail Designation***

18 **BUTTERFIELD OVERLAND MAIL AND STAGE ROUTE (HISTORIC)**

19 **Subroute 2.1**

20 ***Scenic and Recreation Resources***

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

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

37 ***Historic and Cultural Resources***

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

1 F-11) would cross the Butterfield Trail adjacent to a Butterfield Trail Related Segment. Likewise, the
2 Project could have moderate impacts on potential Federal Protection Components, including high-
3 potential route segments located on public land, as well as on potential NHT properties, including
4 remnants and artifacts from the associated period of use that may be eligible for or listed on the NRHP to
5 qualify as possible high-potential historic sites or high-potential route segments. The Project would not
6 limit the agency's ability to manage the trail for the purpose of identifying and protecting the historic
7 route and its historic remnants and artifacts for public use and enjoyment. The Mimbres RMP specifies
8 that "facilities will not be located within ¼ mile of any stage station on the Butterfield Trail" (BLM
9 1993:5-47#). The nearest stage station is located at Fort Bowie, approximately 20 miles to the southwest.
10 Based on these criteria, the Project would have a low impact on high-sensitivity, historic segments or sites
11 associated with the Butterfield Trail at this location.

12 ***Biological, Natural, and Other Resources***

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

17 **Subroute 2.2**

18 ***Scenic and Recreation Resources***

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

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

34 ***Historic and Cultural Resources***

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

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

3 ***Biological, Natural, and Other Resources***

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

8 **Route Group 2 Local Alternatives**

9 ***Scenic and Recreation Resources***

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

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

36 Local alternative LD2 (refer to table F-2, Butterfield-4) would intersect the Butterfield Trail on BLM-
37 managed lands. Local alternative LD2 would cross and roughly parallel the Butterfield Trail, in Class C
38 scenery associated with high to moderate sensitivity. The viewshed does not include other transmission
39 lines or pipelines. Local alternative LD2 would cross between the north and south Lordsburg Playas,
40 somewhat paralleling the Butterfield Trail (see figure F-9). The scale of the proposed facilities would be
41 different, and the Project would introduce new visual features, thereby increasing the level of contrast and
42 resulting in moderate impacts to scenic resources of the Butterfield Trail at this location. The crossing of
43 the Butterfield Trail by LD2 would be in direct conflict with management prescriptions of the Mimbres
44 RMP, which states ROW “facilities will not be located parallel to the CDNST or Butterfield Trail” (BLM
45 1993). The Butterfield Trail is located on BLM lands at the Butterfield-4 crossing, and thus this

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

3 ***Historic and Cultural Resources***

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

17 ***Biological, Natural, and Other Resources***

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

22 **Route Group 2 Summary**

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

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

32 **Route Group 3: Apache Substation to Pantano Substation**

33 ***National Historic Trails***

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

35 ***National Scenic Trails***

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

1 ***Trails Recommended as Suitable for National Trail Designation***

2 **BUTTERFIELD OVERLAND MAIL AND STAGE ROUTE (HISTORIC)**

3 **Subroute 3.1**

4 ***Scenic and Recreation Resources***

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

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

22 ***Historic and Cultural Resources***

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

36 ***Biological, Natural, and Other Resources***

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

1 **Route Group 3 Local Alternatives**

2 ***Scenic and Recreation Resources***

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

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

16 ***Historic and Cultural Resources***

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

29 ***Biological, Natural, and Other Resources***

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

34 **Route Group 3 Summary**

35 Route group 3 would result in low impacts to inventoried resources, values, and settings of the Butterfield
36 Trail. The majority of the Project would parallel and be viewed in context with several existing
37 transmission lines and facilities as well as the transportation corridor along I-10. Overall, based on the
38 results of the impact assessment, route group 3 would not substantially compromise the Butterfield Trail's
39 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

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

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

8 ***Historic and Cultural Resources***

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

14 ***Biological, Natural, and Other Resources***

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

20 **Route Group 4 Local Alternatives**

21 ***Scenic and Recreation Resources***

22 Local alternatives TH3 Option B (refer to table F-2, Anza-2) and TH3b (refer to table F-2, Anza-3, Anza-
23 4, and Anza-5) would cross the Anza Trail in areas that already contain 115-kV transmission lines
24 (local alternative TH3b would cross the Anza Trail three times in separate locations). Route group 4
25 Alternatives would cross the Anza Trail in the Tucson area in four locations, all on private land.
26 The scenery has not been classified in these areas, but generally has low sensitivity that is associated with
27 highly urbanized areas. Travel route viewers along I-10 and local Tucson streets where the Anza Trail
28 crosses would have direct and unobstructed views of the Project in the foreground; however, it would be
29 viewed in context with the existing utility corridor and urban areas, resulting in low impacts. Although
30 the scale of the proposed facilities would be different, the Project would replicate these existing visual
31 features, thereby reducing the level of contrast and resulting in low impacts to scenic resources of the
32 Anza Trail at these locations.

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

35 ***Historic and Cultural Resources***

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

40

1 ***Biological, Natural, and Other Resources***

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

7 ***Trails Recommended as Suitable for National Trail Designation***

8 **BUTTERFIELD OVERLAND MAIL AND STAGE ROUTE (HISTORIC)**

9 **Subroute 4.1 and Local Alternatives**

10 ***Scenic and Recreation Resources***

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

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

24 ***Historic and Cultural Resources***

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

37 ***Biological, Natural, and Other Resources***

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

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

3 **Route Group 4 Summary**

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

9 **Agency Preferred Alternative**

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

12 ***National Scenic Trails***

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

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

17 ***National Historic Trails***

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

21 ***Trails Recommended as Suitable for National Trail Designation***

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

30 **Cumulative Effects**

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

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

16 ***Scenic and Recreation Resources***

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

38 **CUMULATIVE EFFECTS ANALYSIS FOR THE PROPOSED SOUTHLINE PROJECT**

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

1 construction activities would result in cumulative effects that would contribute incrementally from the
2 reasonably foreseeable actions. Operation activities associated with the Project would be ongoing and
3 long-term, and would occur along the ROW for the life of the Project. The proposed transmission line
4 structures, substations, and associated long-term access would be permanent and require routine
5 maintenance, including vegetation maintenance in areas where forests occur. Operation of the reasonably
6 foreseeable actions would permanently alter the scenic resources and change the viewsheds associated
7 with recreation resources for the life of the Project. Although the transmission line would cross the
8 Arizona Trail and Continental Divide Trail on existing utility corridors, the difference in scale of the
9 structures will be noticeable, and the length of time trail users are under transmission lines and exposed to
10 transmission line noise and foreground visual impacts will be longer. Additional reasonably foreseeable
11 future actions may further the degradation of the CDNST trail corridor setting near the Hidalgo
12 substation. Therefore all possible mitigation measures should be implemented to minimize experiential
13 and visual impacts such as using towers that oxidize to a natural patina, and spacing towers for maximum
14 possible distance from trail and/or matching structure spans. Construction of additional roads crossing
15 NSTs and disturbance of the trail tread should be avoided. NSTs are intended to be in non-motorized
16 settings where feasible and mitigation should include measures to prevent motor vehicles of any kind
17 from accessing NSTs during or after construction, and prevent public use of Project created routes within
18 0.25 mile of NSTs after Project completion.

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

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

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

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

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

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

27 **CUMULATIVE EFFECTS ANALYSIS, INCLUDING ENERGY DEVELOPMENT**
28 **SCENARIOS**

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

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

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

17 ***Historic and Cultural Resources***

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

31 ***Biological, Natural, and Other Resources***

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

38 **CUMULATIVE EFFECTS ANALYSIS FOR THE PROPOSED SOUTHLINE PROJECT**

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

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

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

23 **CUMULATIVE EFFECTS ANALYSIS, INCLUDING ENERGY DEVELOPMENT** 24 **SCENARIOS**

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

36 Engineering constraints require placement of solar fields in large, level areas. Although sensitive montane
37 and riparian habitats are not generally impacted by solar development, a number of species associated
38 with level valley bottoms in the Sonoran Desert are threatened by ongoing urban and agricultural
39 development of those areas. Solar energy development, when not located on previously disturbed land,
40 contributes to the decline of these biological resources. The incremental impact of the Project with solar
41 development would result in moderate impacts to habitats.
42

1 **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.

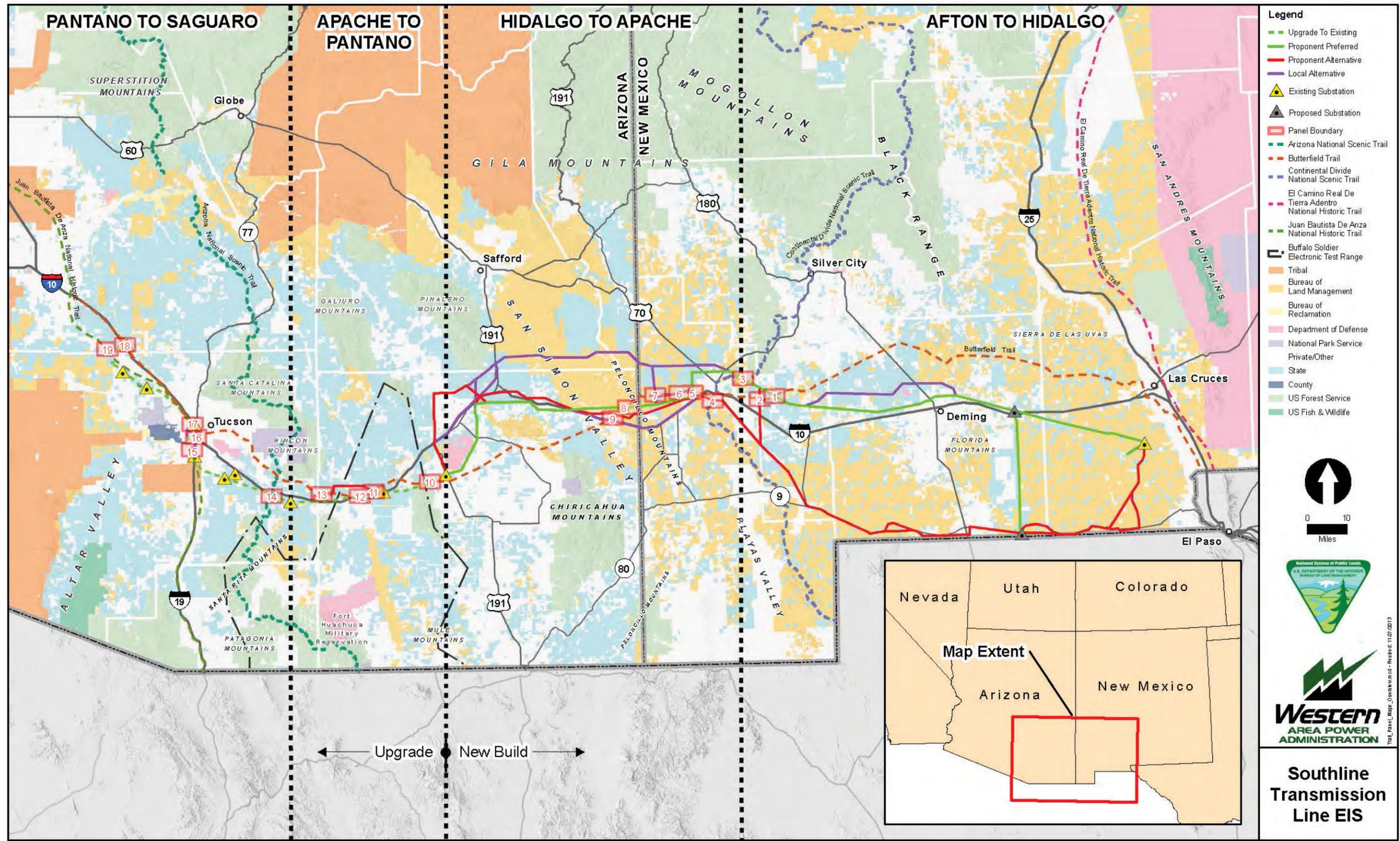
2 The National Trails Assessment Project-level impact assessment figures are provided below, beginning
 3 with figure F-3, Panel Index Map illustrating the intersections for Project-level National Trails System
 4 assessment. Map panels for visual and recreation resources are illustrated on figures F-4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

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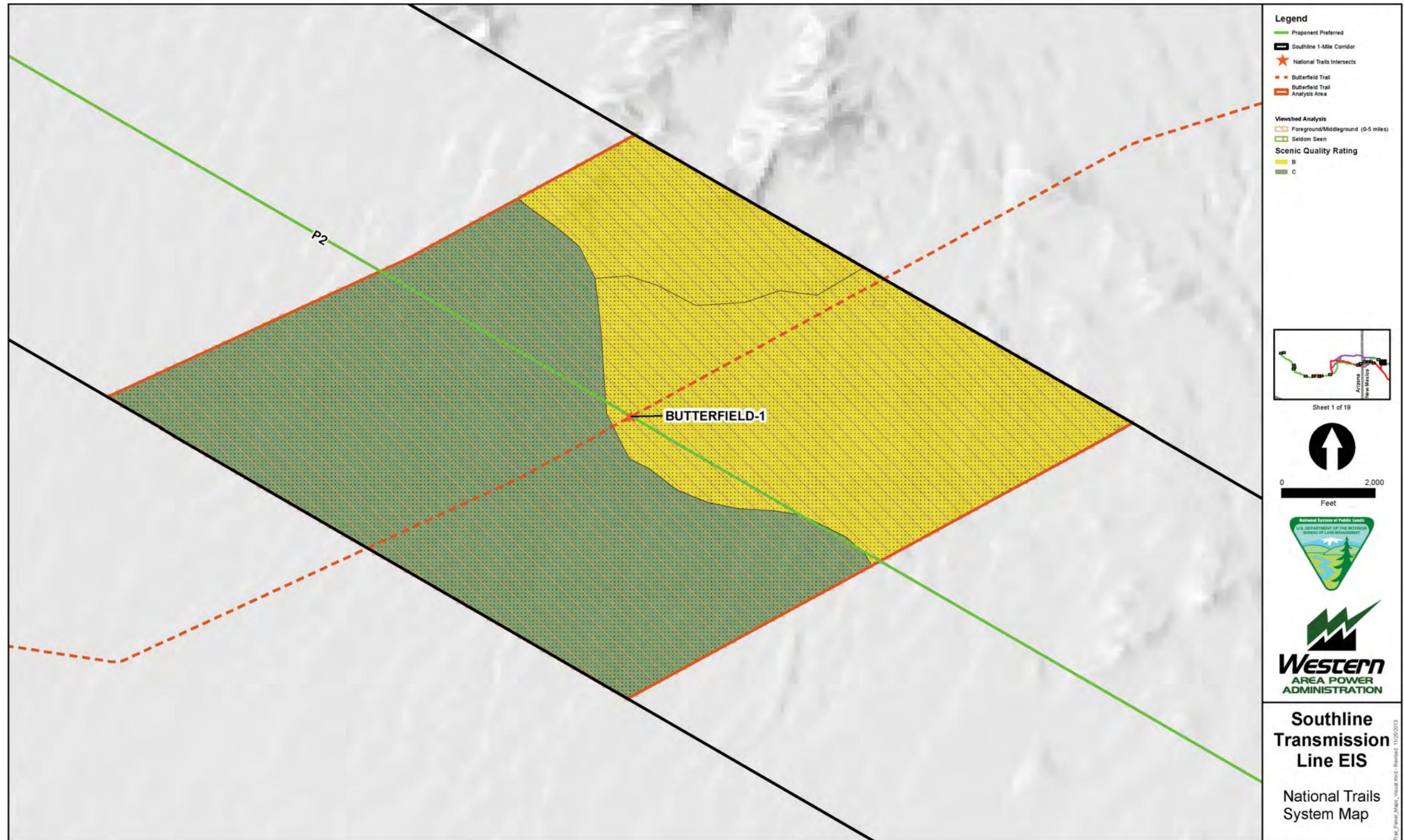
1 **Figure F-3. Panel Index Map illustrating the intersections for Project-level National Trail System assessment.**



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



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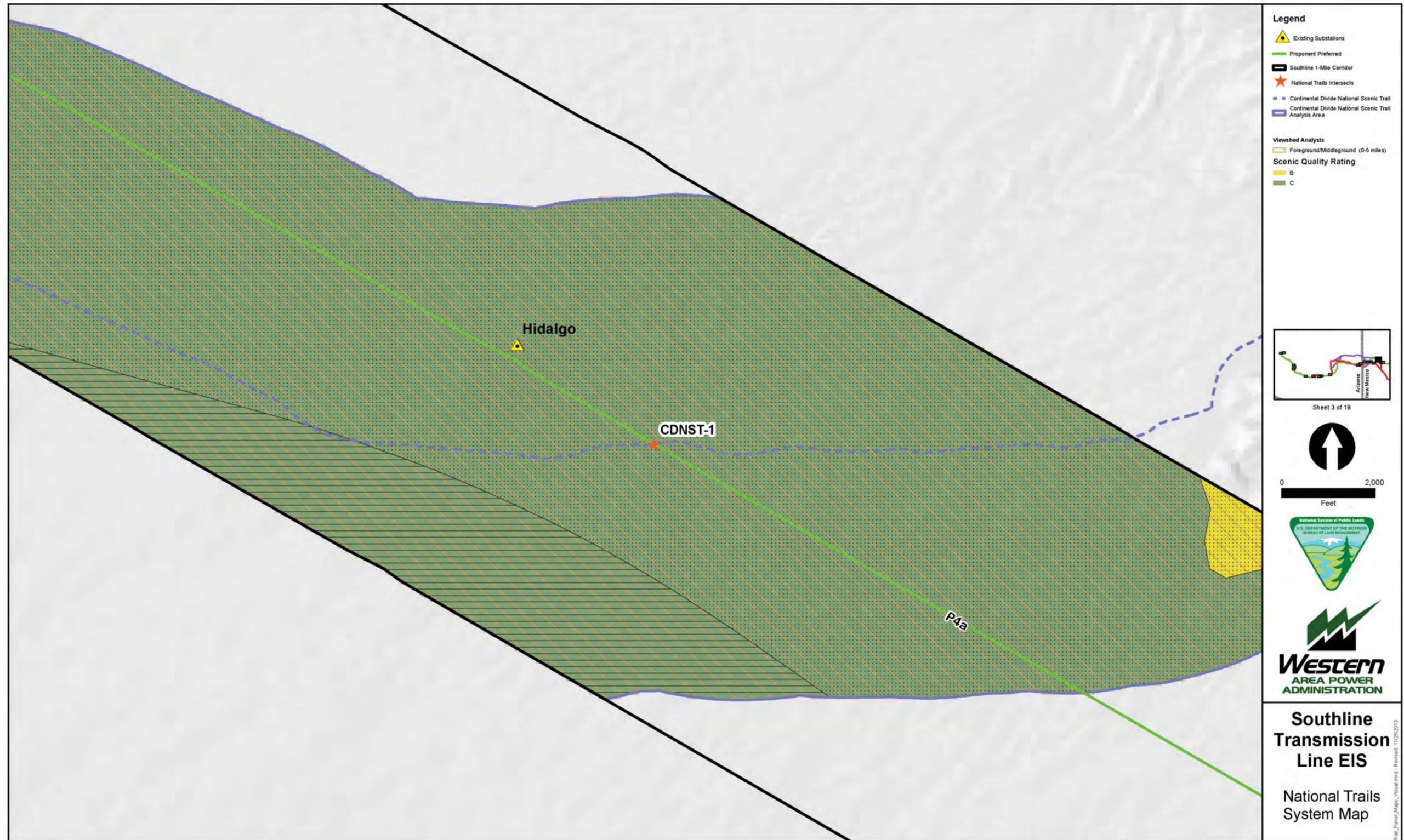
Figure F-5. Detailed trail inventory for visual and recreation resources (Panel 2).



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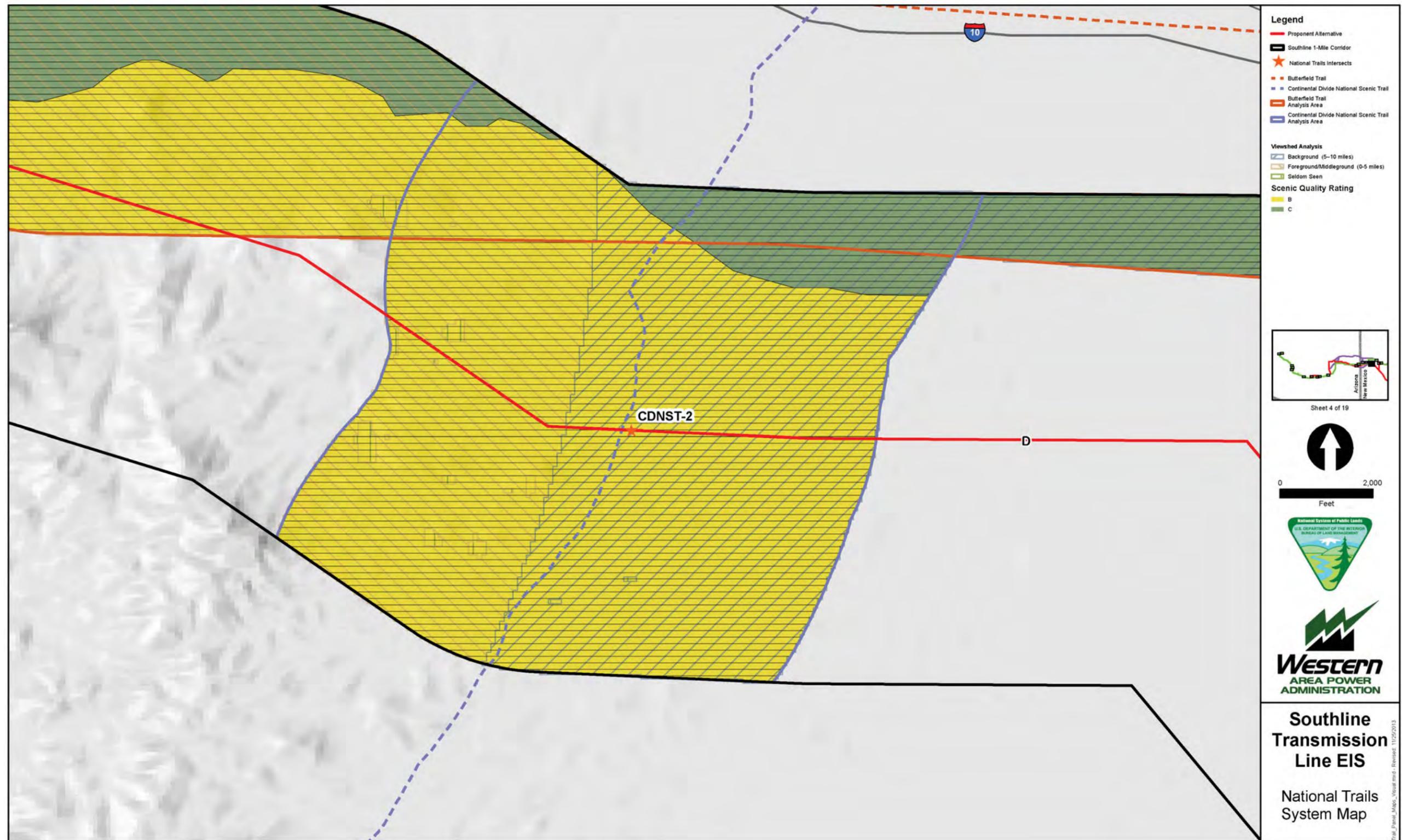
Figure F-6. Detailed trail inventory for visual and recreation resources (Panel 3).



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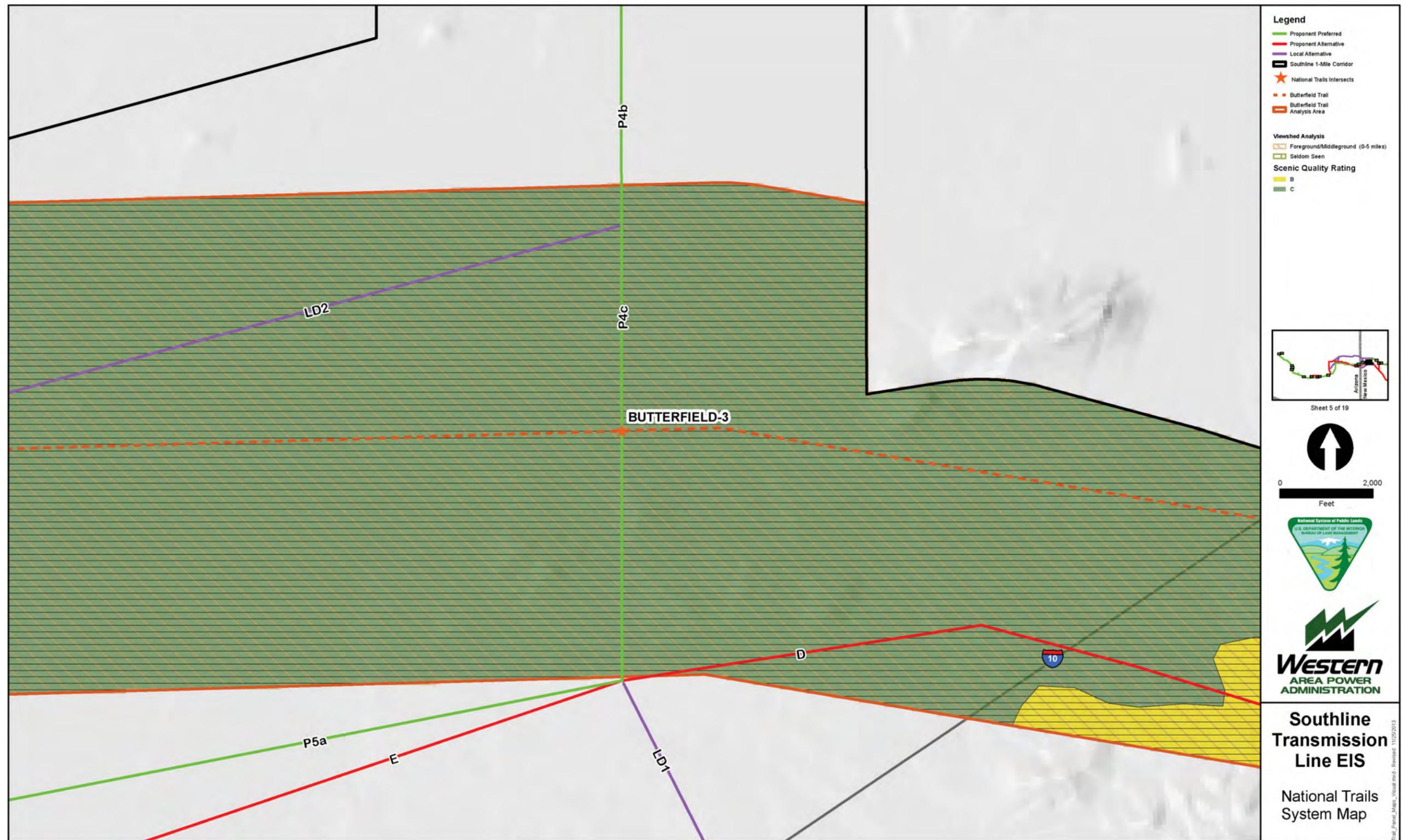
Figure F-7. Detailed trail inventory for visual and recreation resources (Panel 4).



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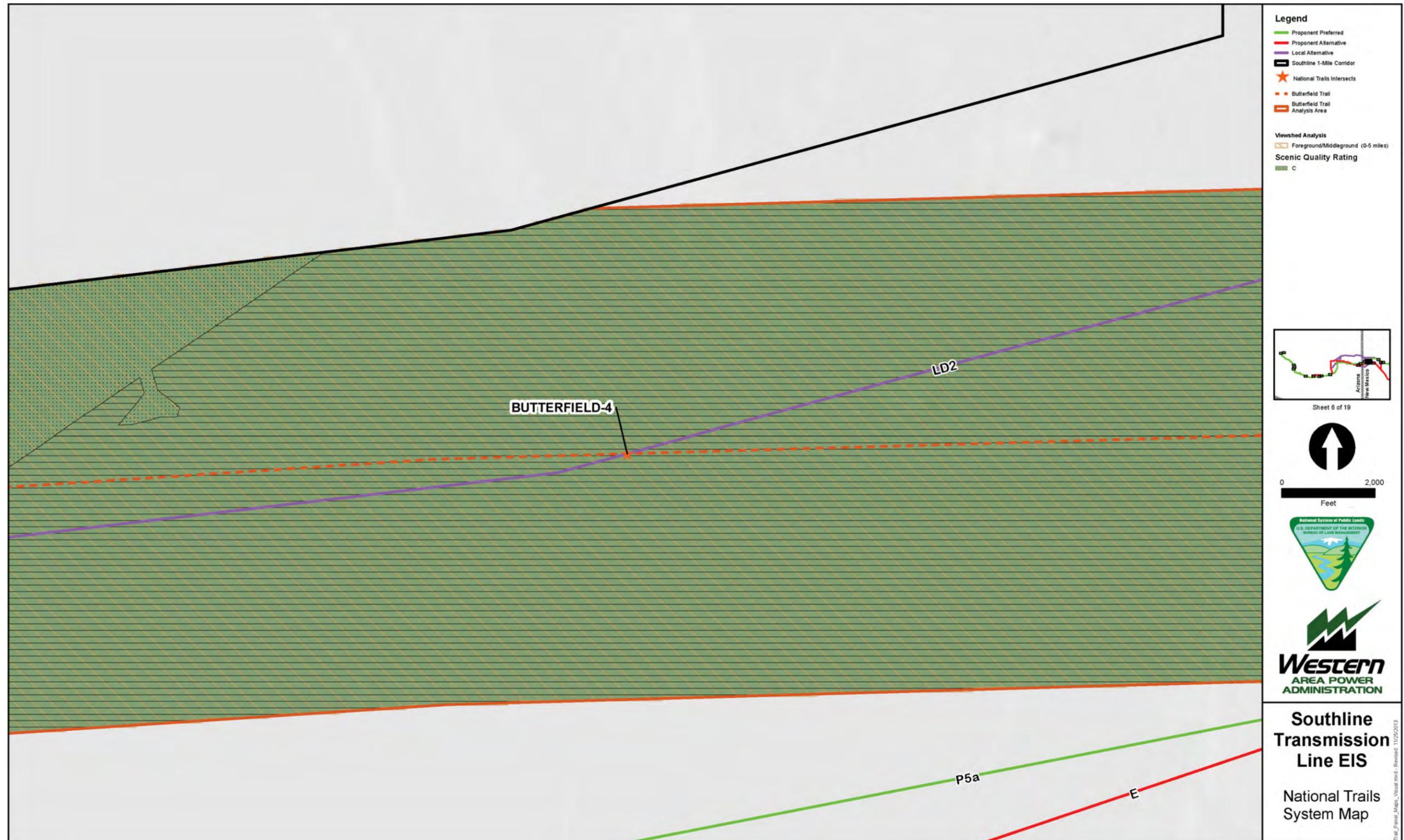
Figure F-8. Detailed trail inventory for visual and recreation resources (Panel 5).



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



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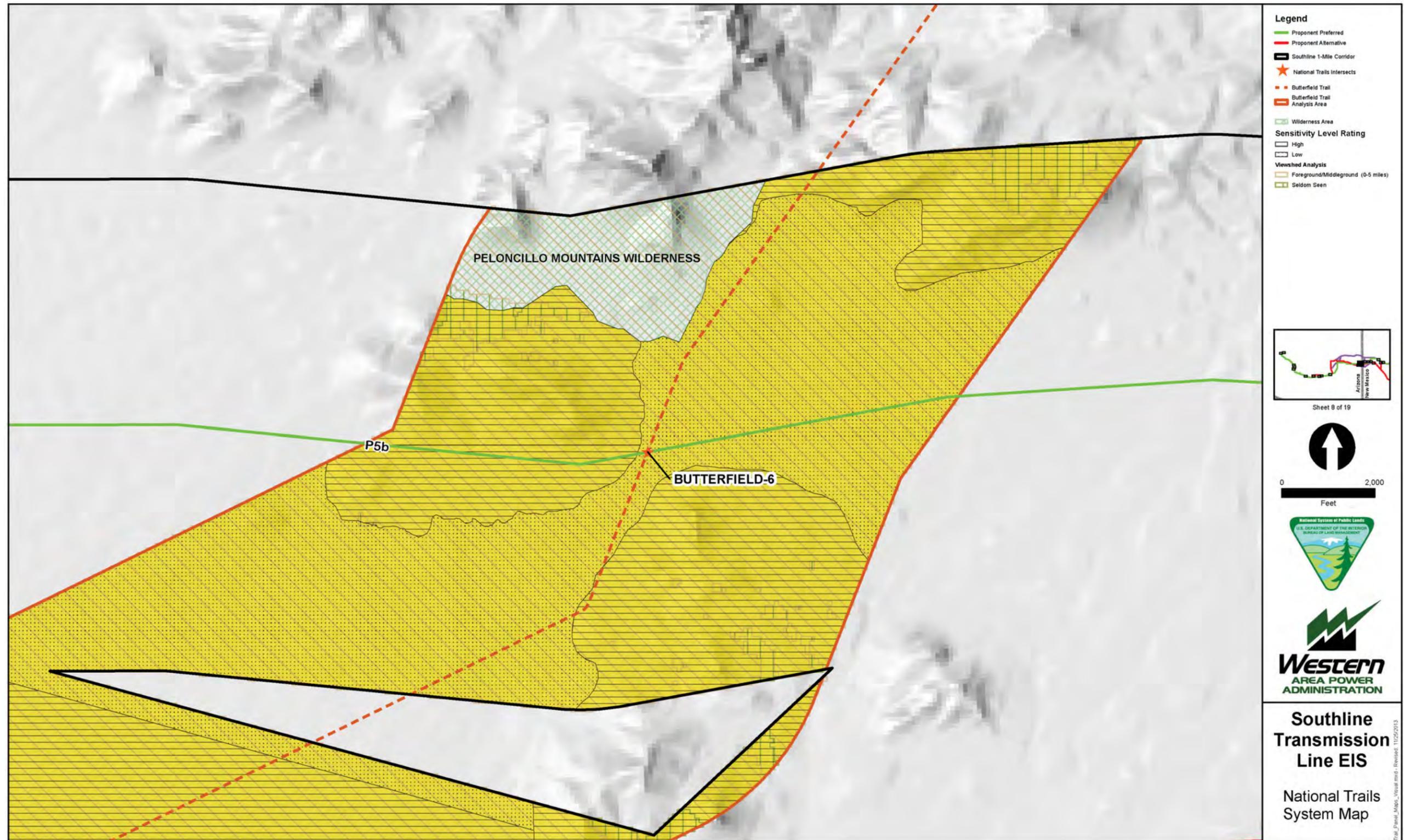
Figure F-10. Detailed trail inventory for visual and recreation resources (Panel 7.)



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



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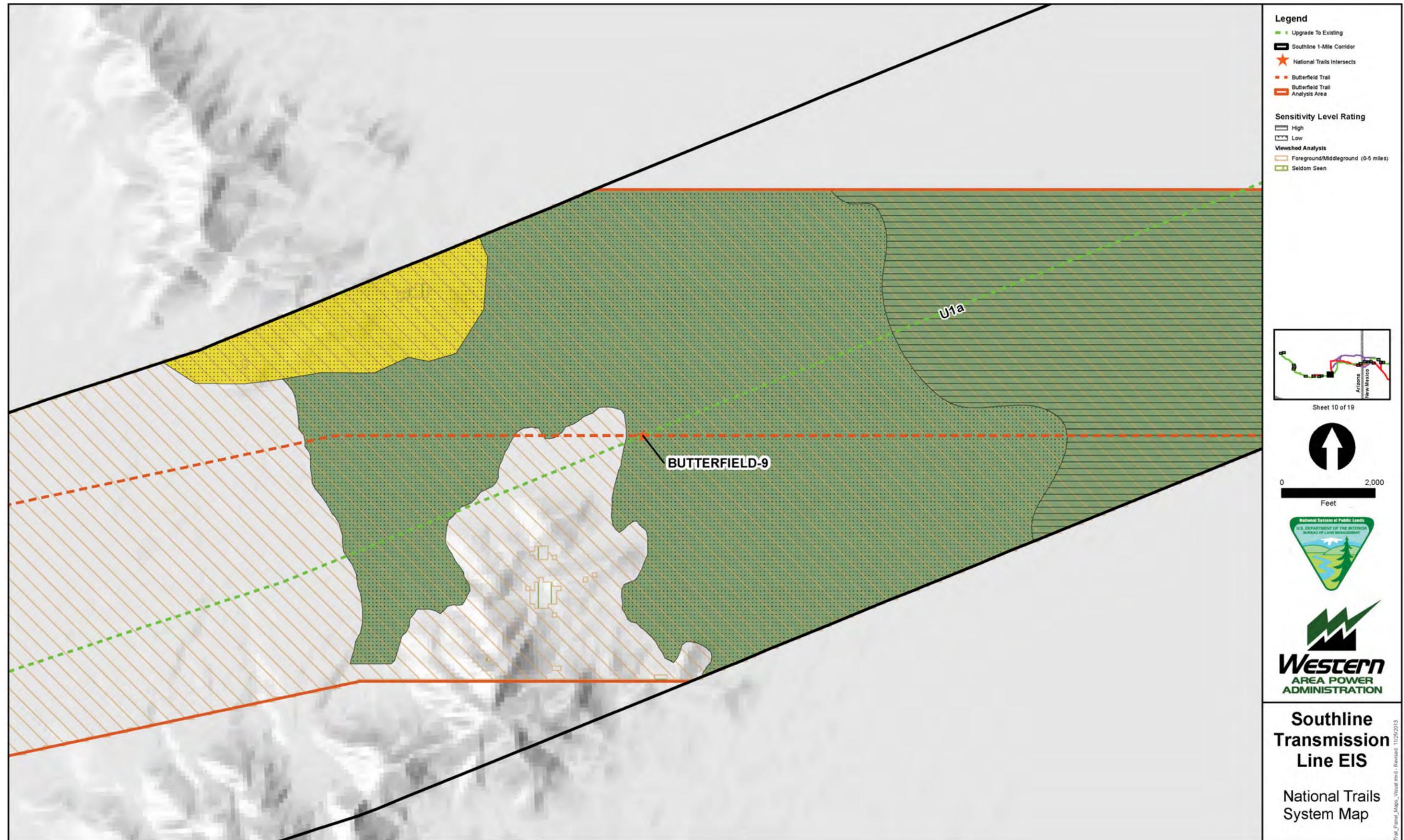
Figure F-12. Detailed trail inventory for visual and recreation resources (Panel 9).



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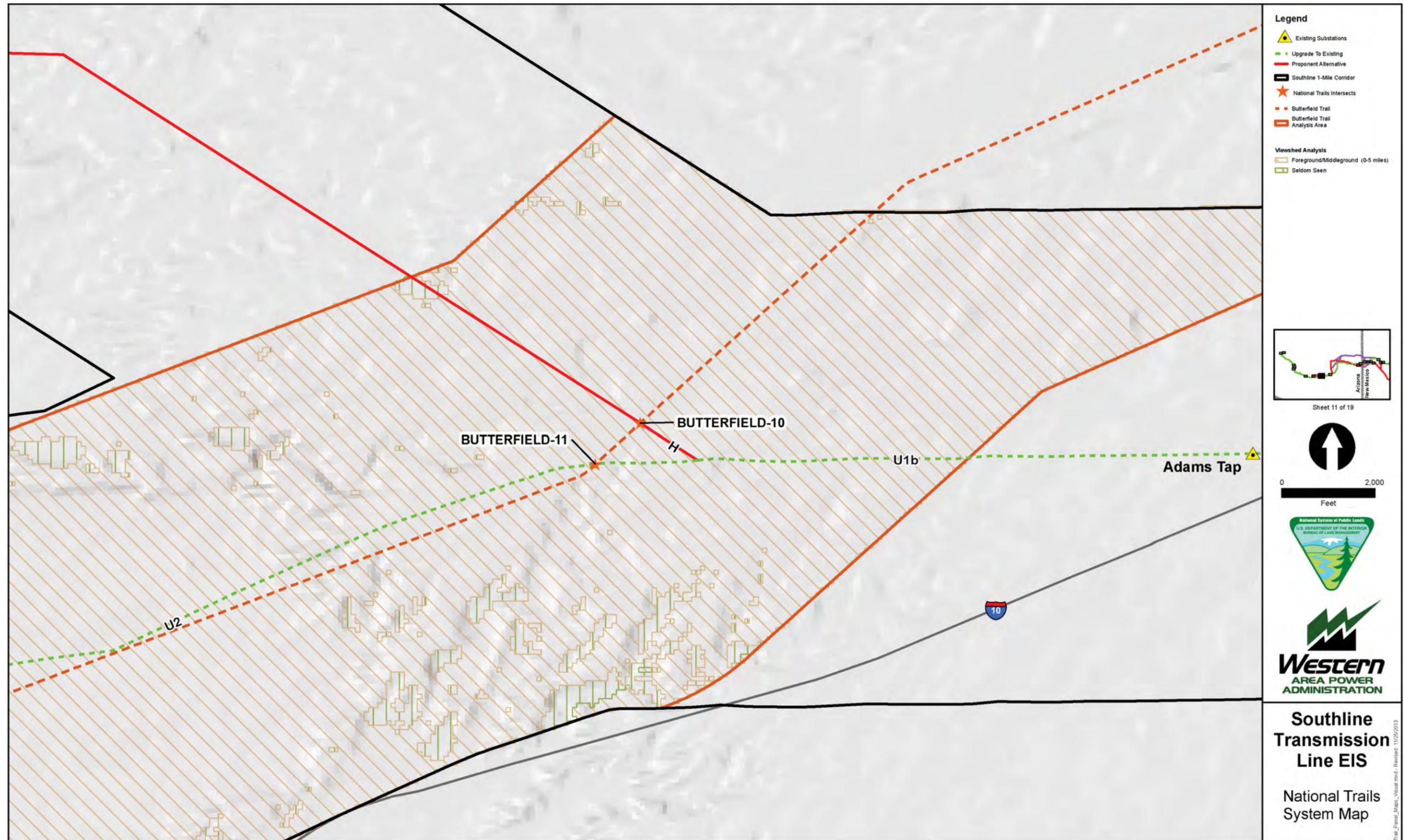
Figure F-13. Detailed trail inventory for visual and recreation resources (Panel 10.)



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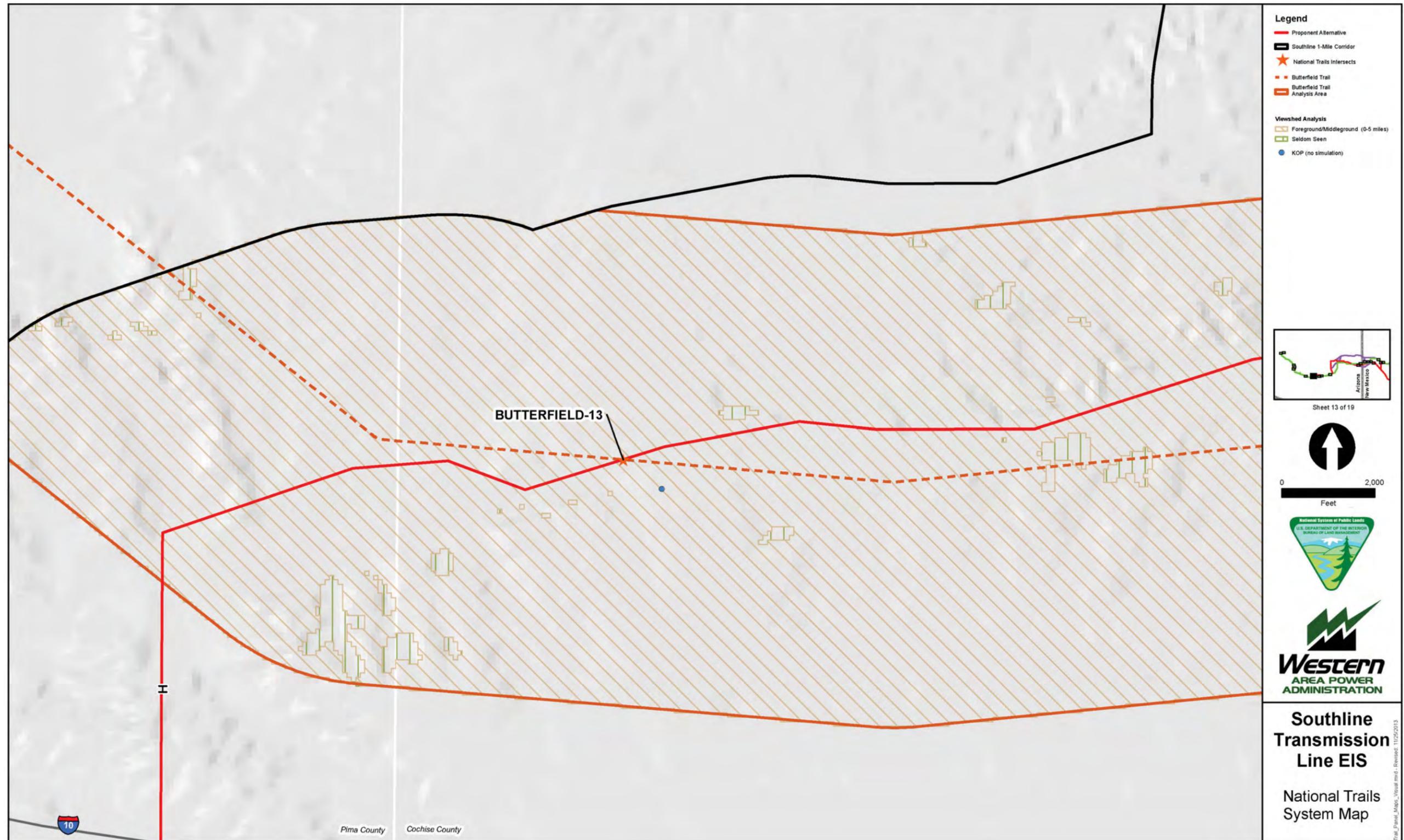
Figure F-14. Detailed trail inventory for visual and recreation resources (Panel 11).



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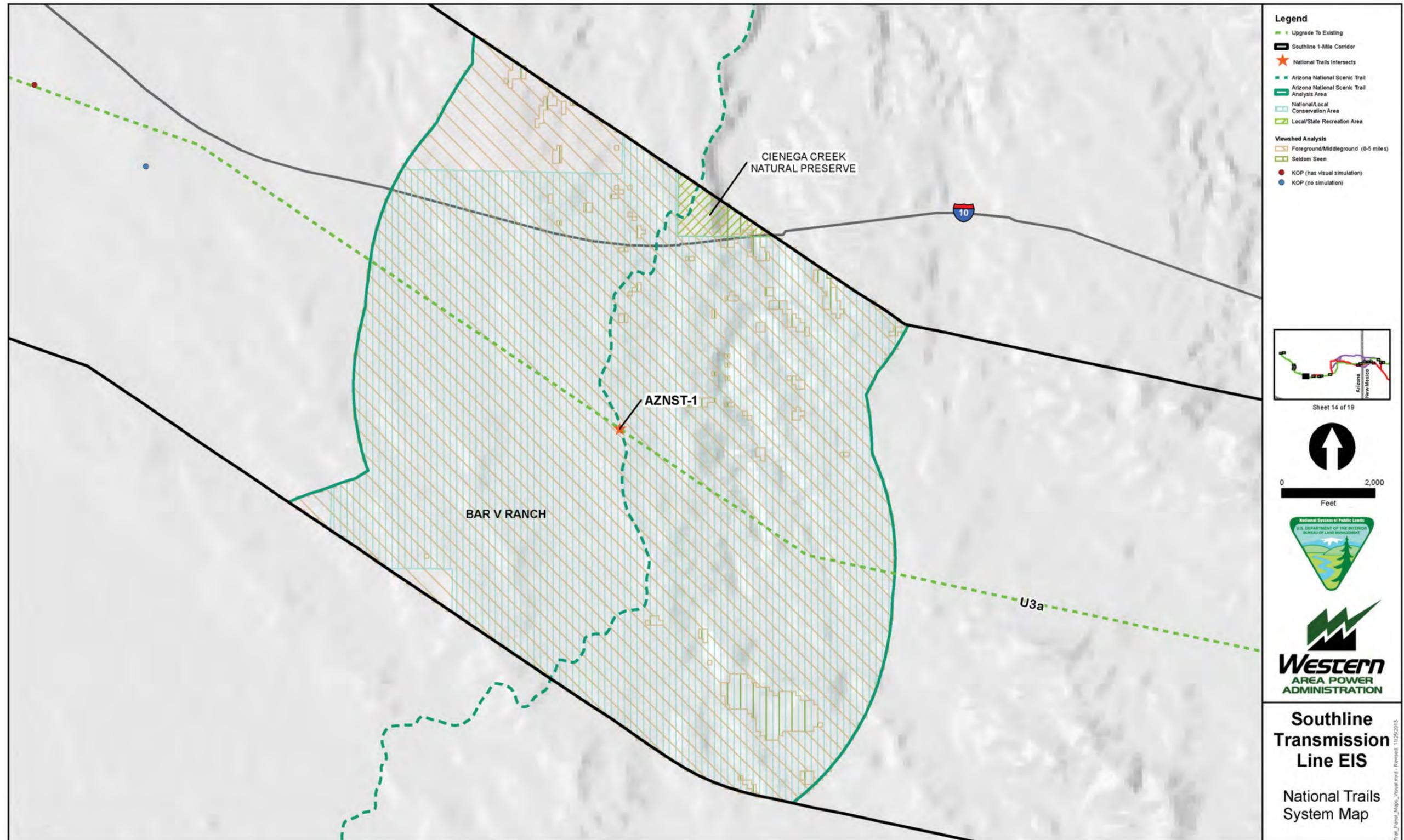
Figure F-16. Detailed trail inventory for visual and recreation resources (Panel 13).



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



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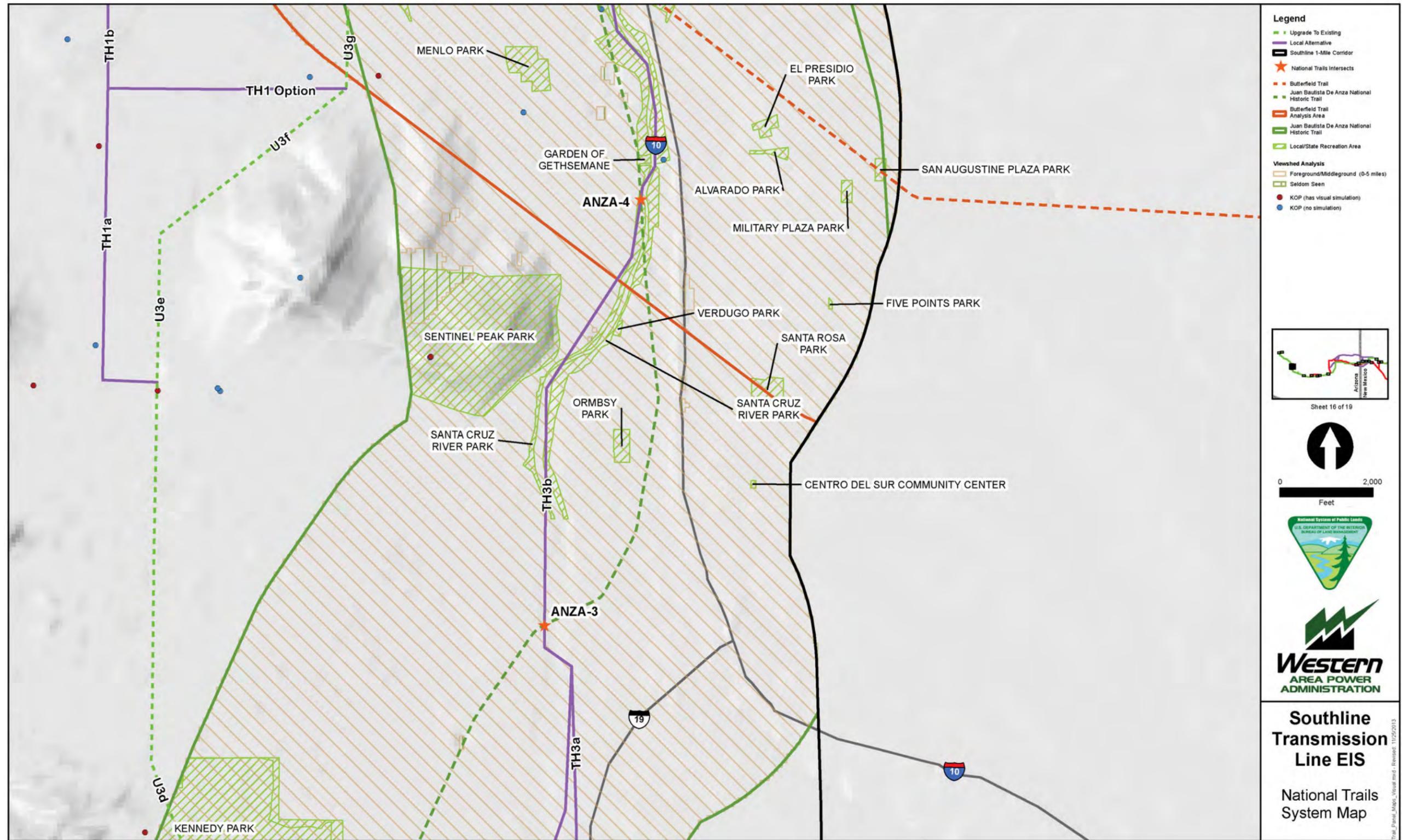
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Figure F-18. Detailed trail inventory for visual and recreation resources (Panel 15).



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



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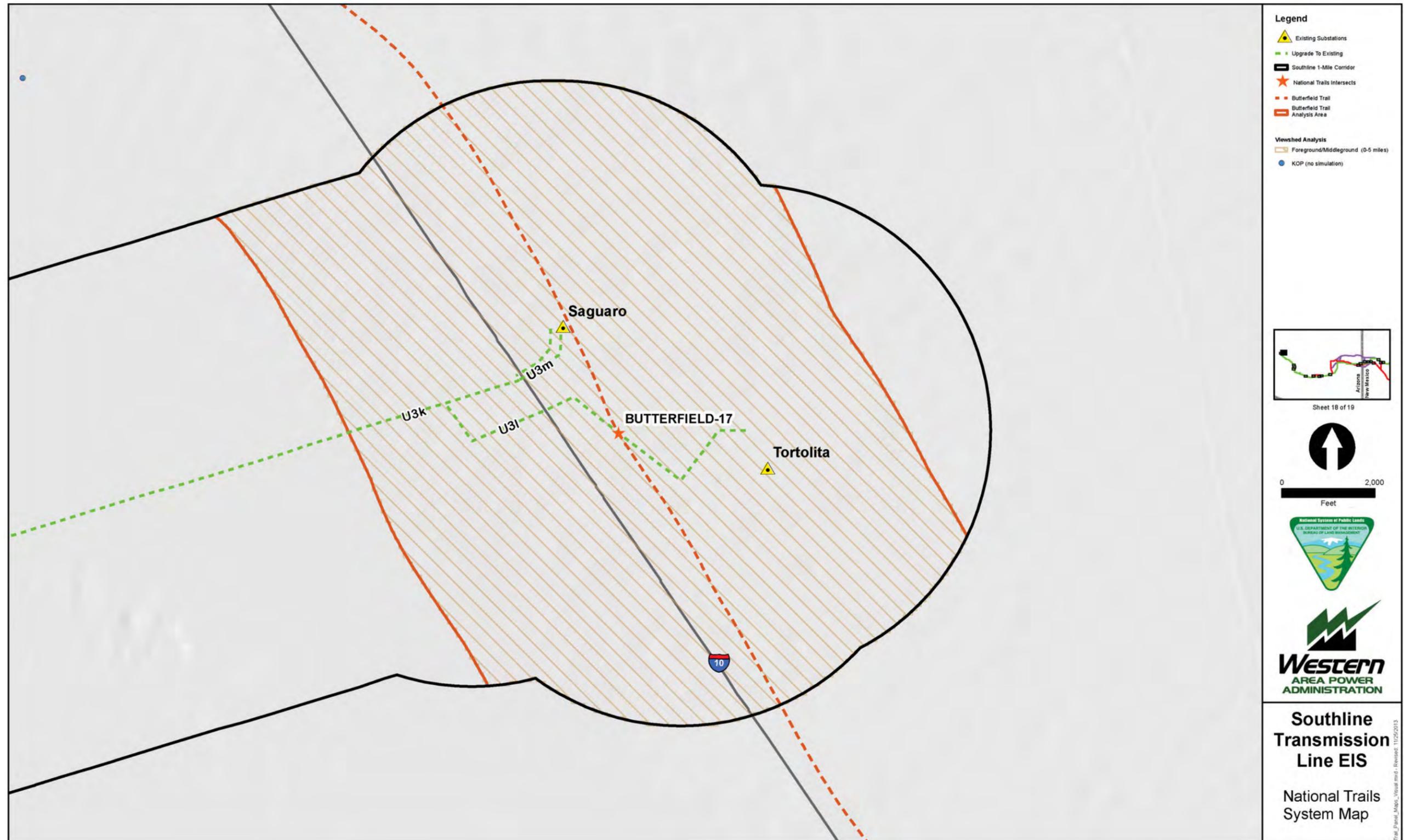
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Figure F-20. Detailed trail inventory for visual and recreation resources (Panel 17).



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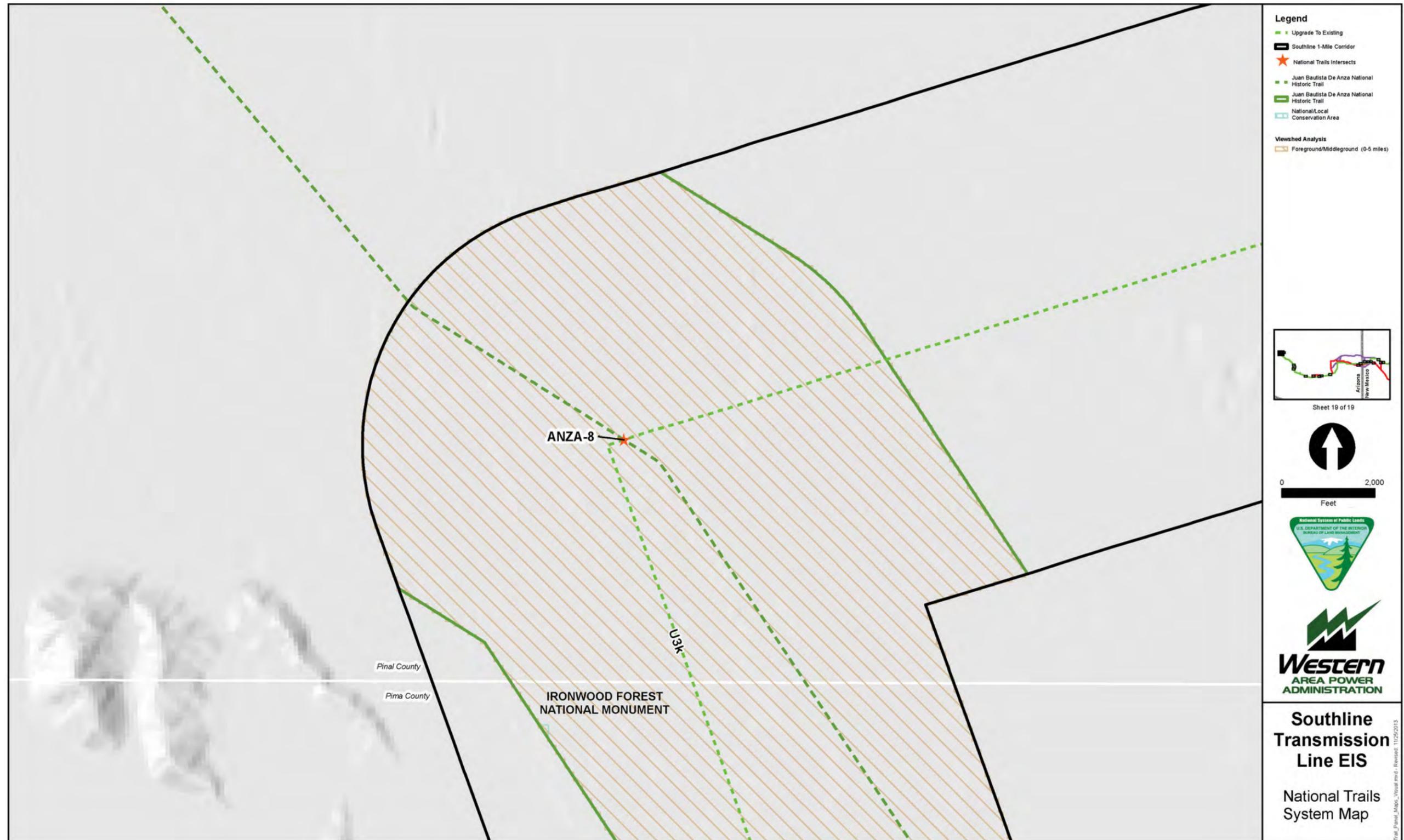
1 **Figure F-21.** Detailed trail inventory for visual and recreation resources (Panel 18).



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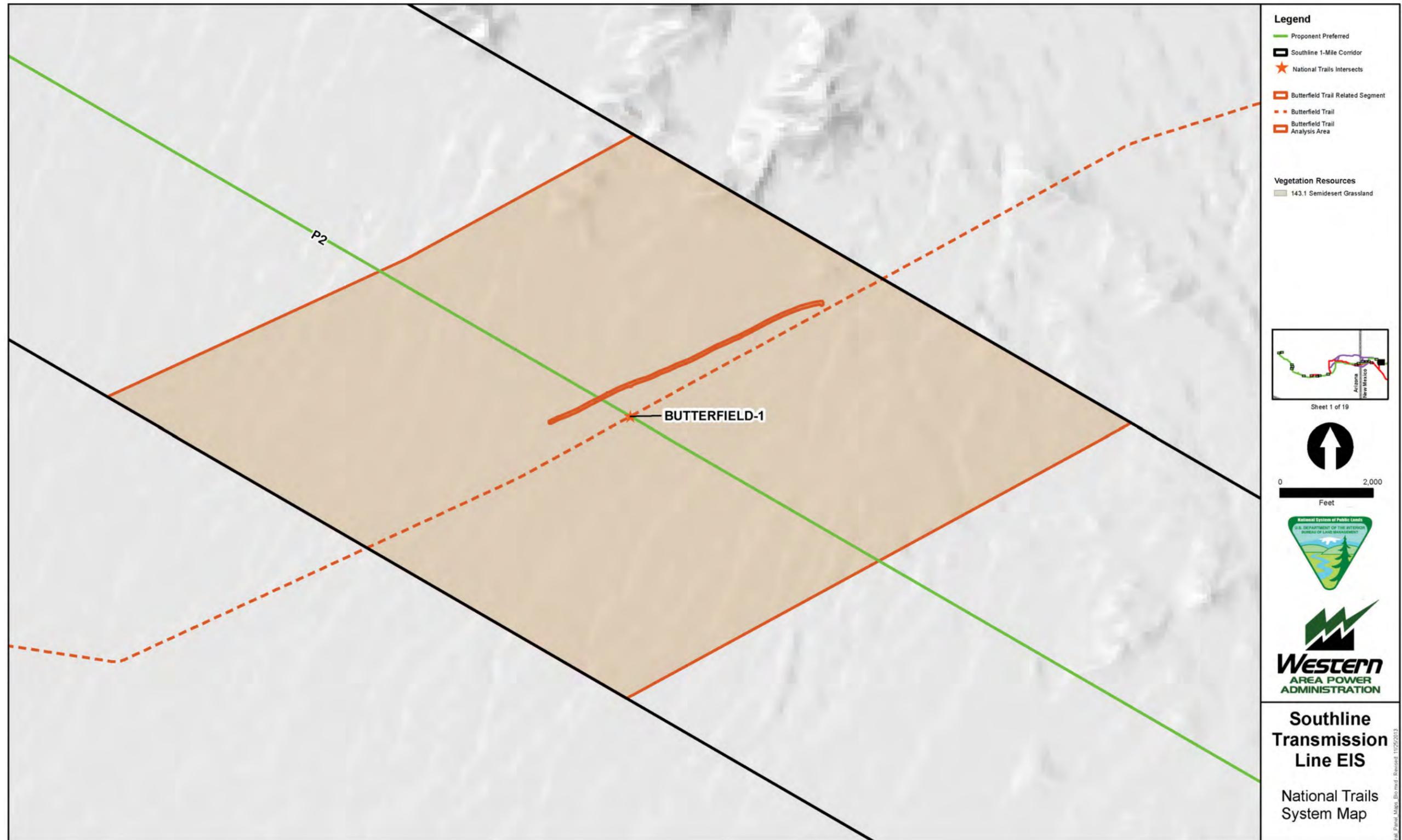
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Figure F-22. Detailed trail inventory for visual and recreation resources (Panel 19).



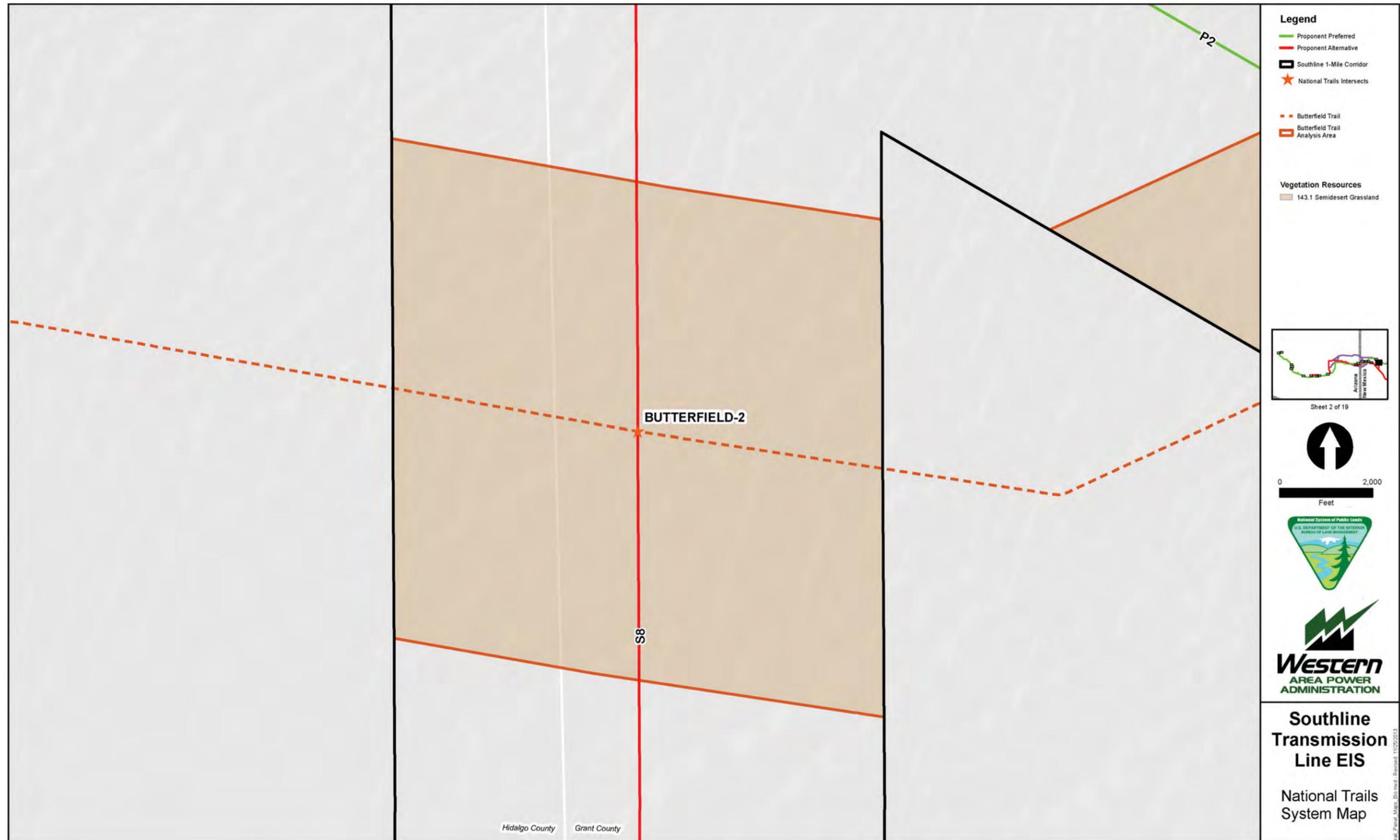
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1 **Figure F-23.** Detailed trail inventory for cultural, biological, and other natural resources (Panel 1).



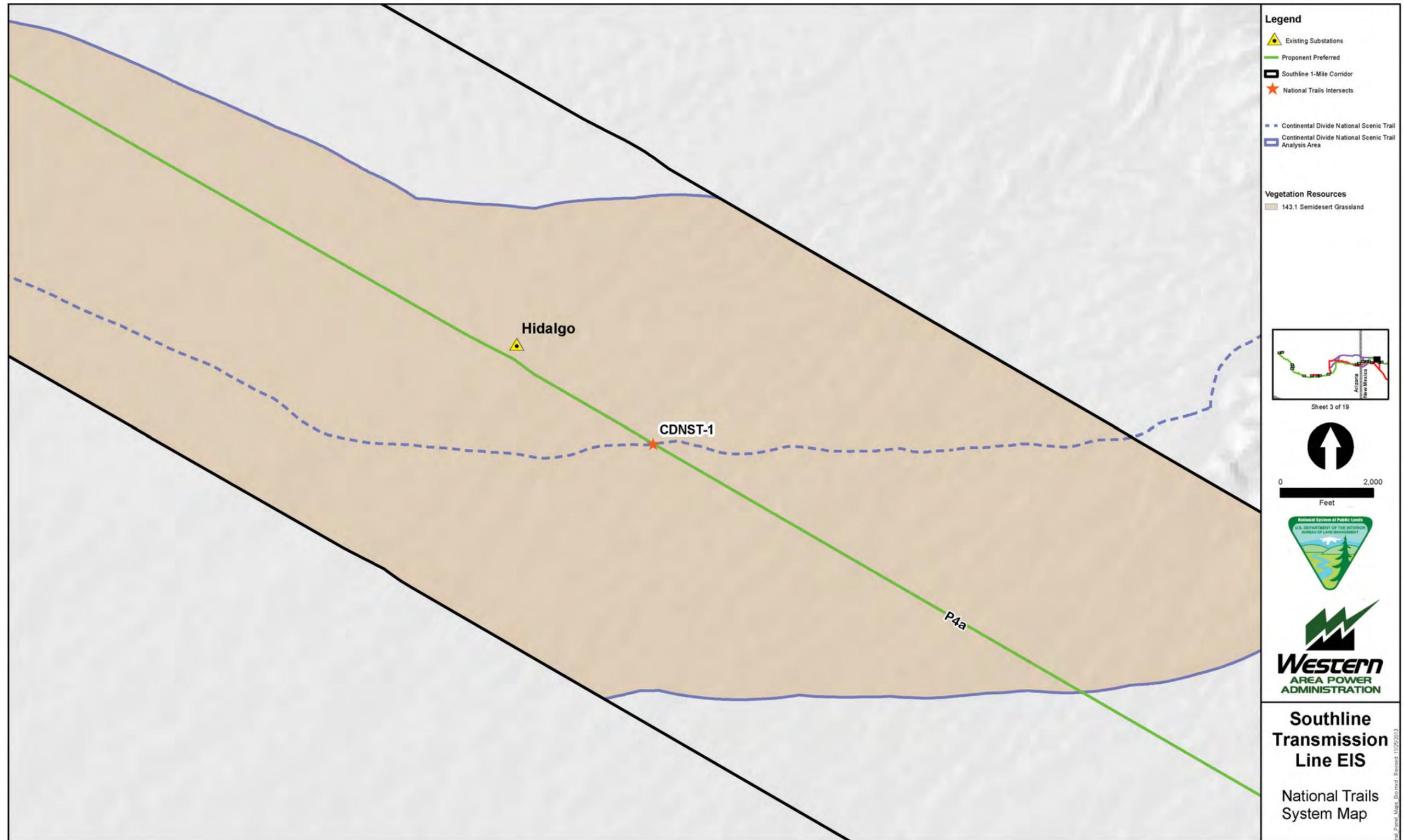
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1 **Figure F-24.** Detailed trail inventory for cultural, biological, and other natural resources (Panel 2).



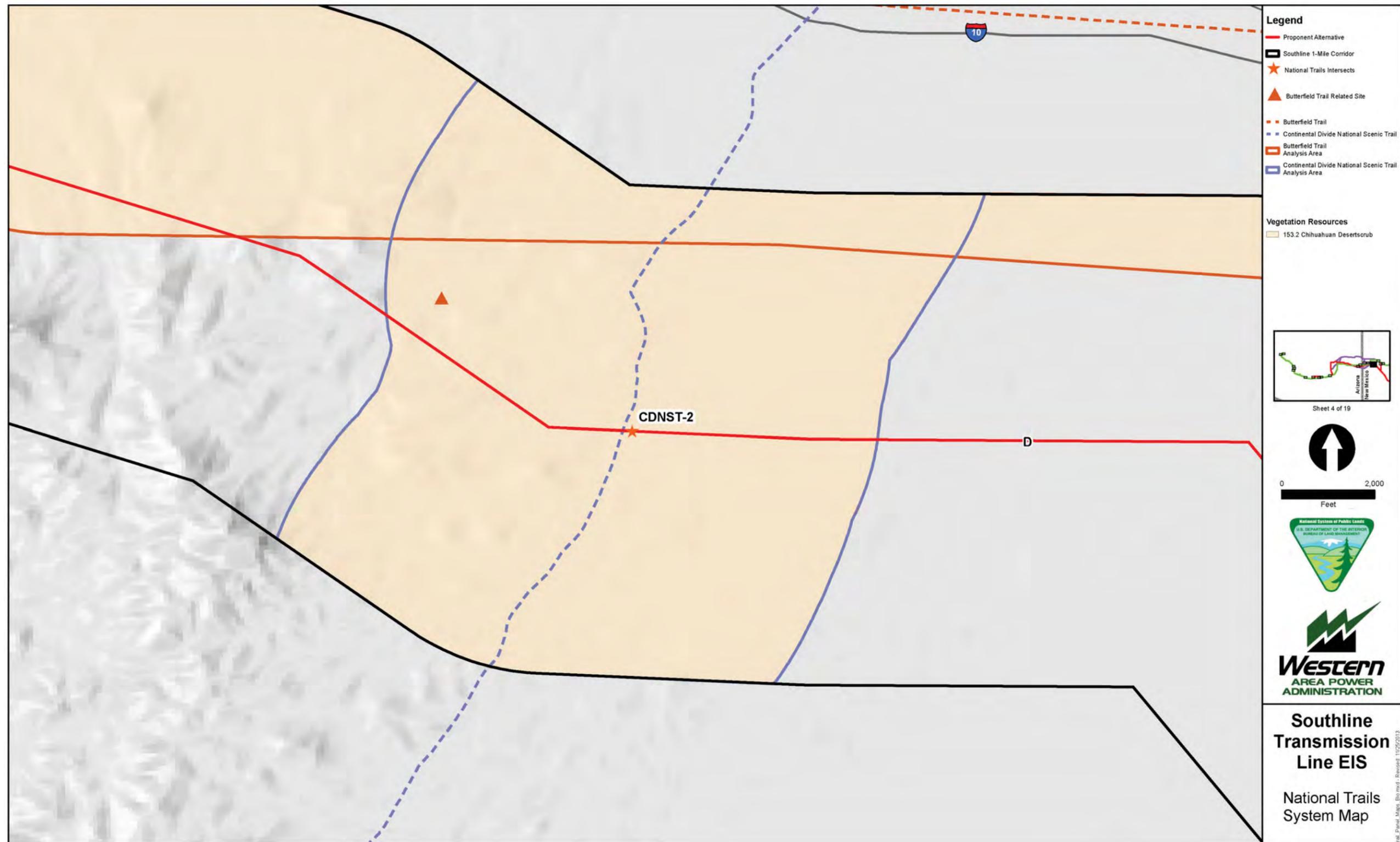
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1 **Figure F-25.** Detailed trail inventory for cultural, biological, and other natural resources (Panel 3).



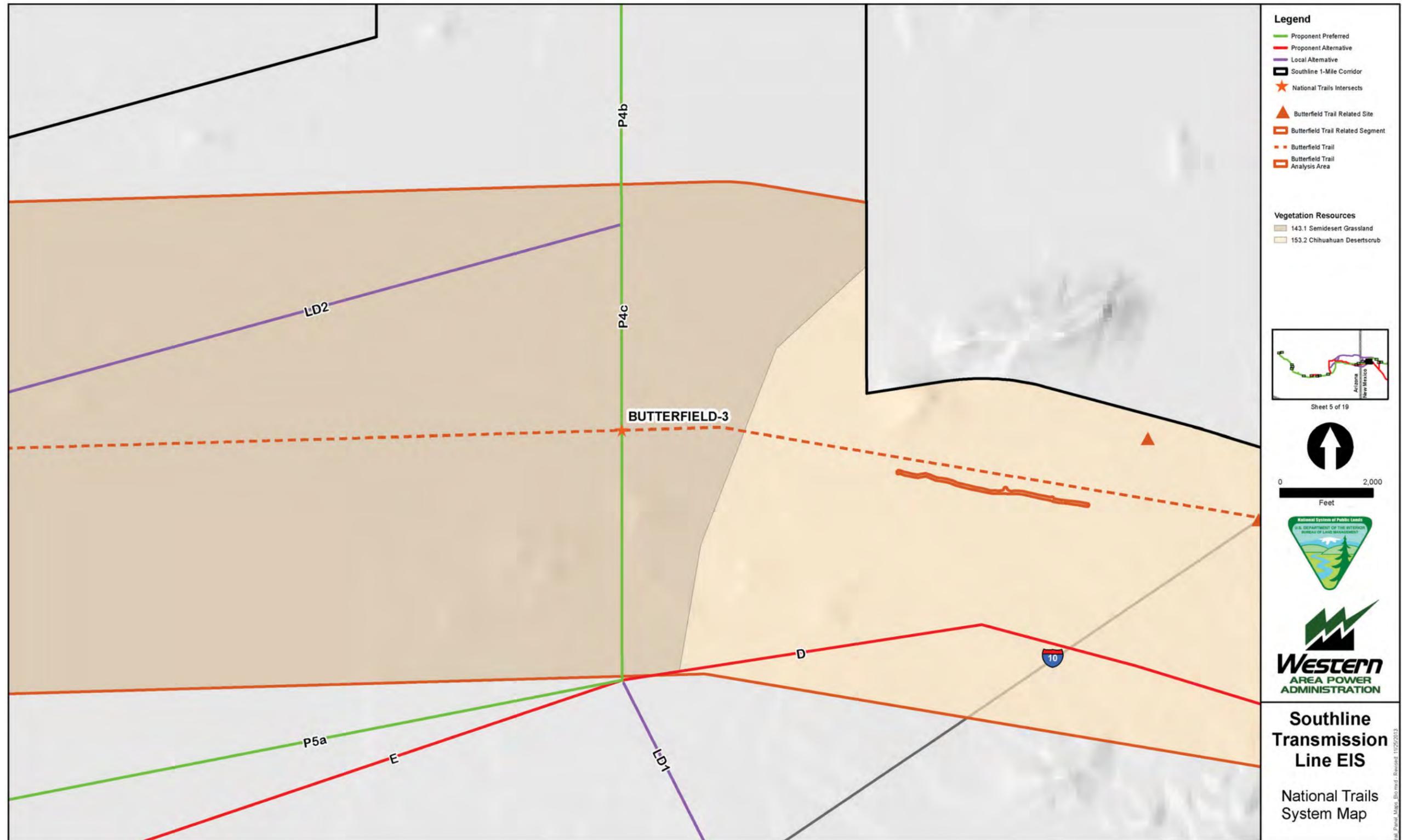
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1 **Figure F-26.** Detailed trail inventory for cultural, biological, and other natural resources (Panel 4).



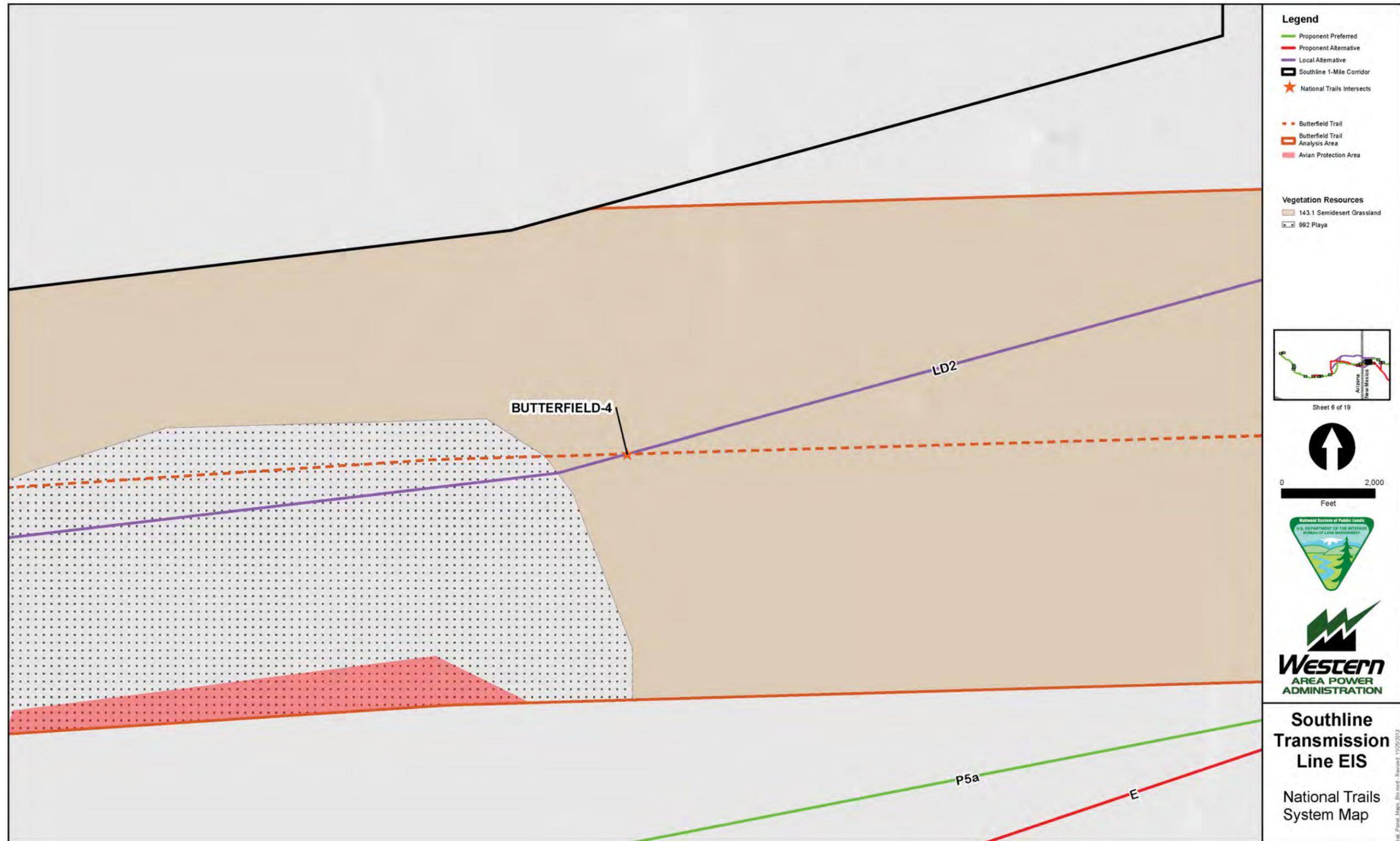
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1 **Figure F-27.** Detailed trail inventory for cultural, biological, and other natural resources (Panel 5).



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



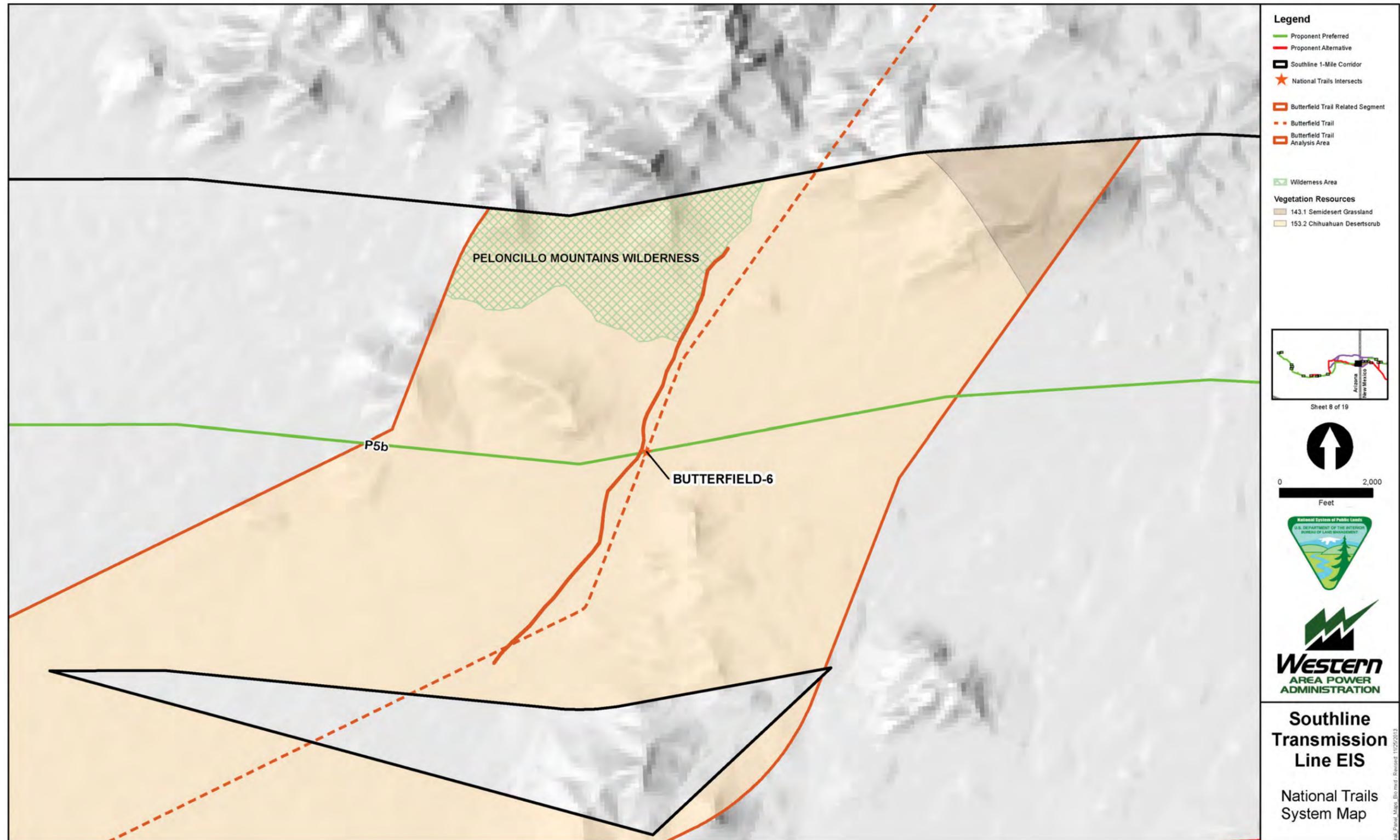
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1 **Figure F-29.** Detailed trail inventory for cultural, biological, and other natural resources (Panel 7).



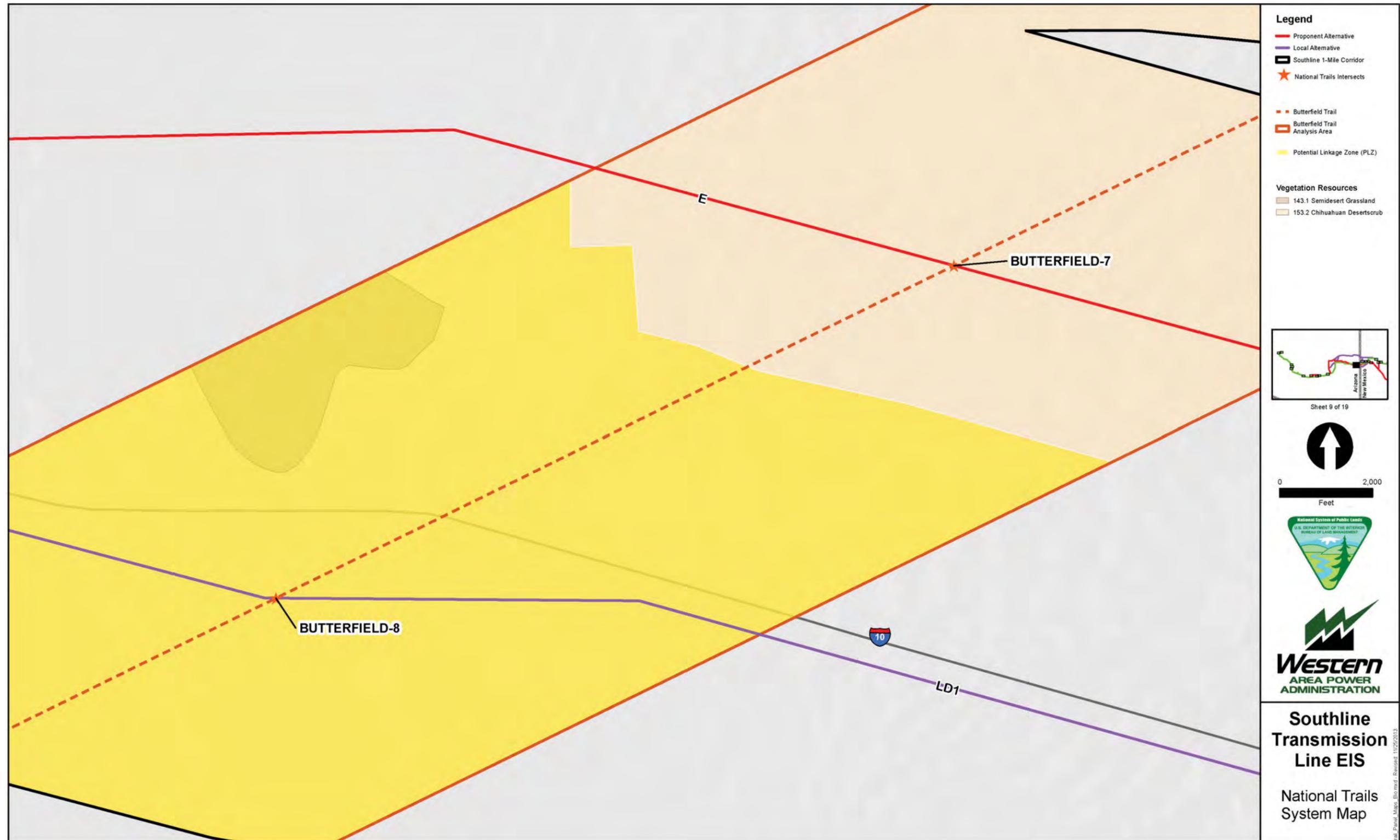
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1 **Figure F-30.** Detailed trail inventory for cultural, biological, and other natural resources (Panel 8).



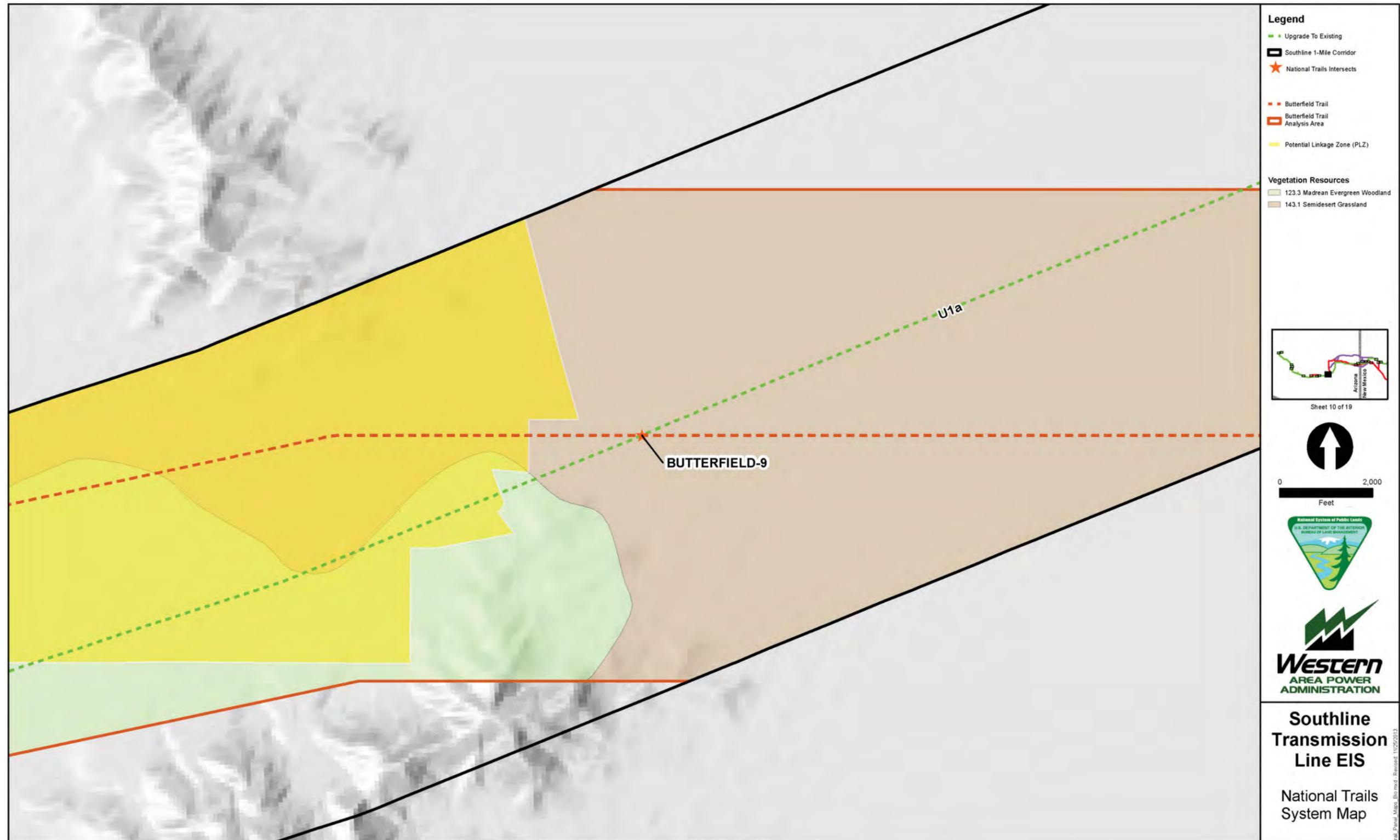
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1 **Figure F-31.** Detailed trail inventory for cultural, biological, and other natural resources (Panel 9).



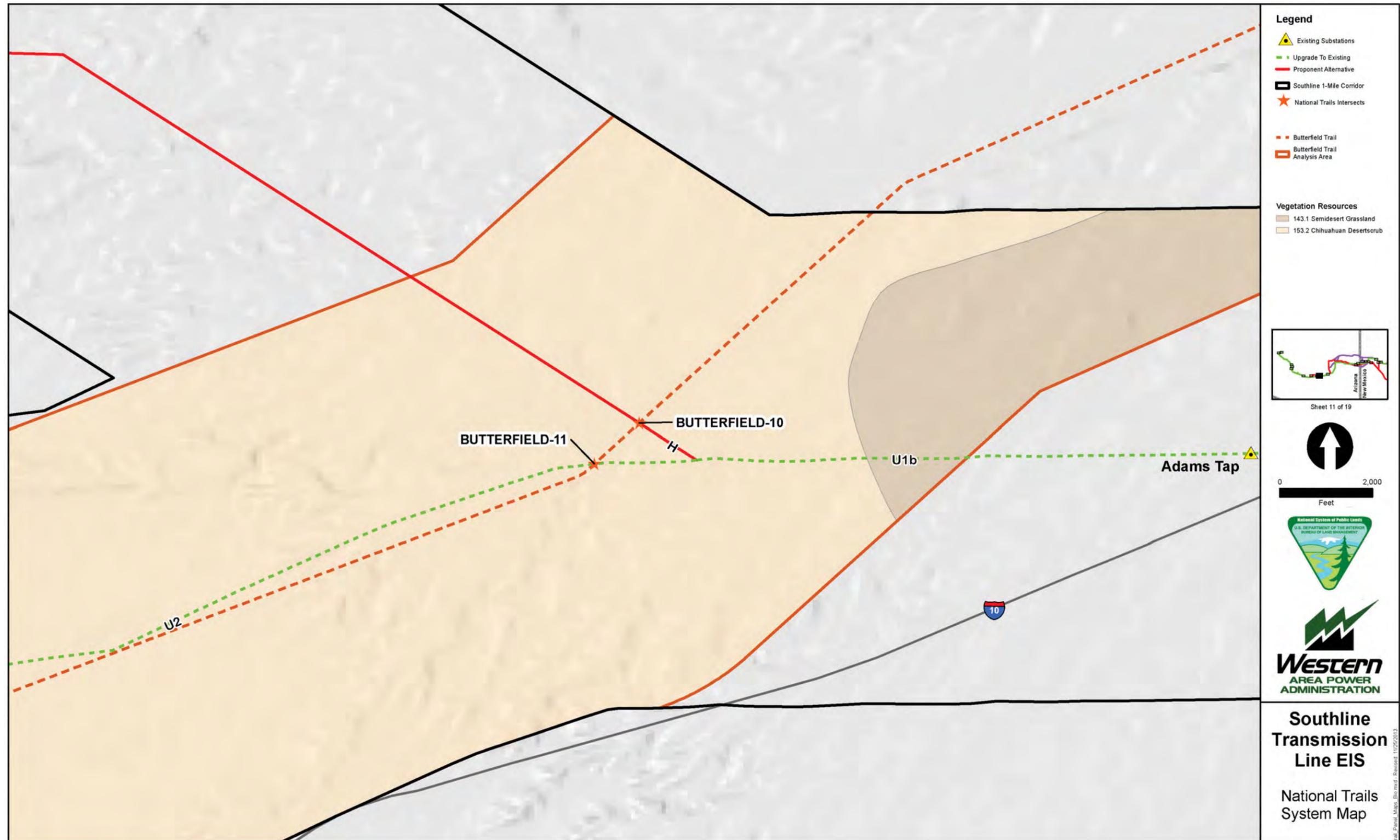
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1 **Figure F-32.** Detailed trail inventory for cultural, biological, and other natural resources (Panel 10).



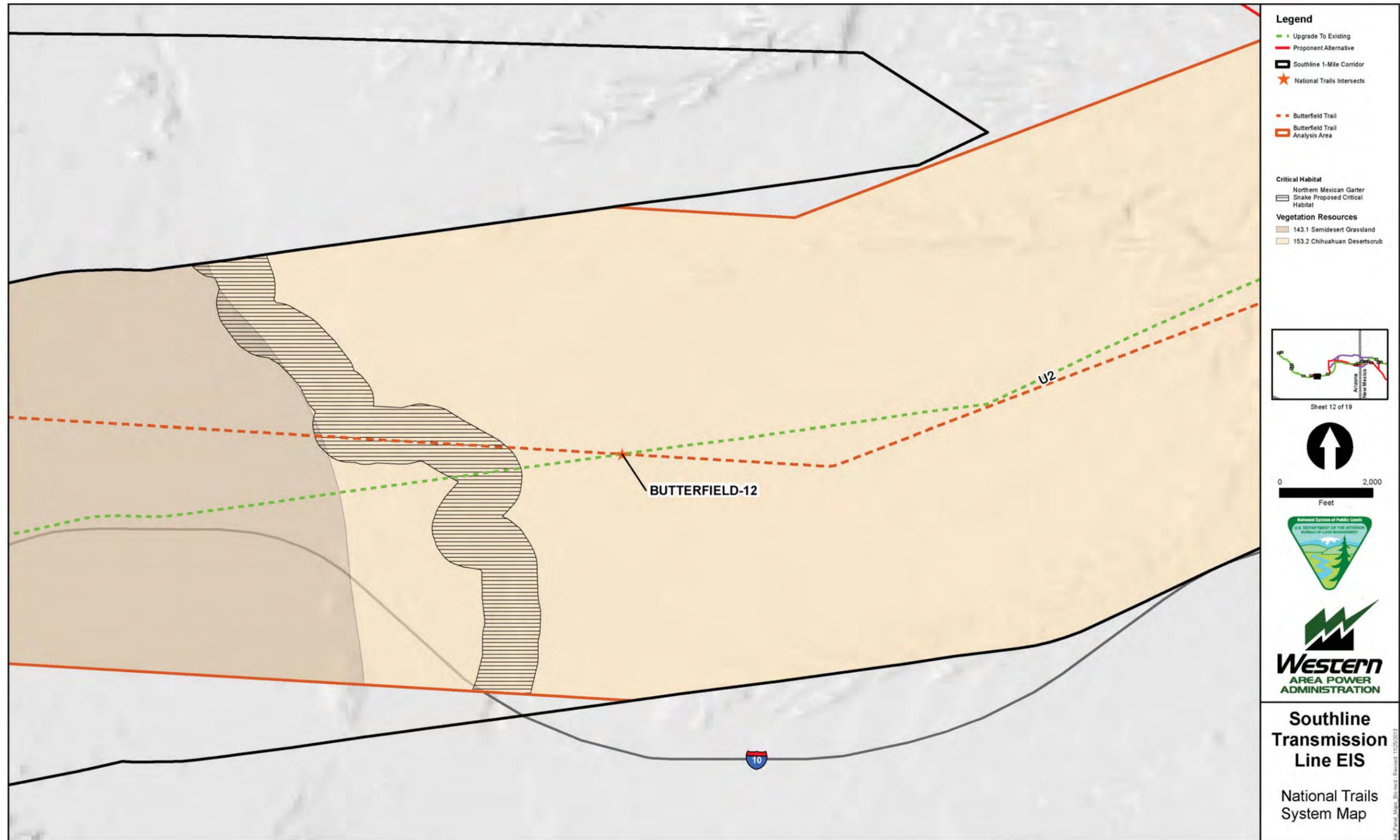
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1 **Figure F-33.** Detailed trail inventory for cultural, biological, and other natural resources (Panel 11).



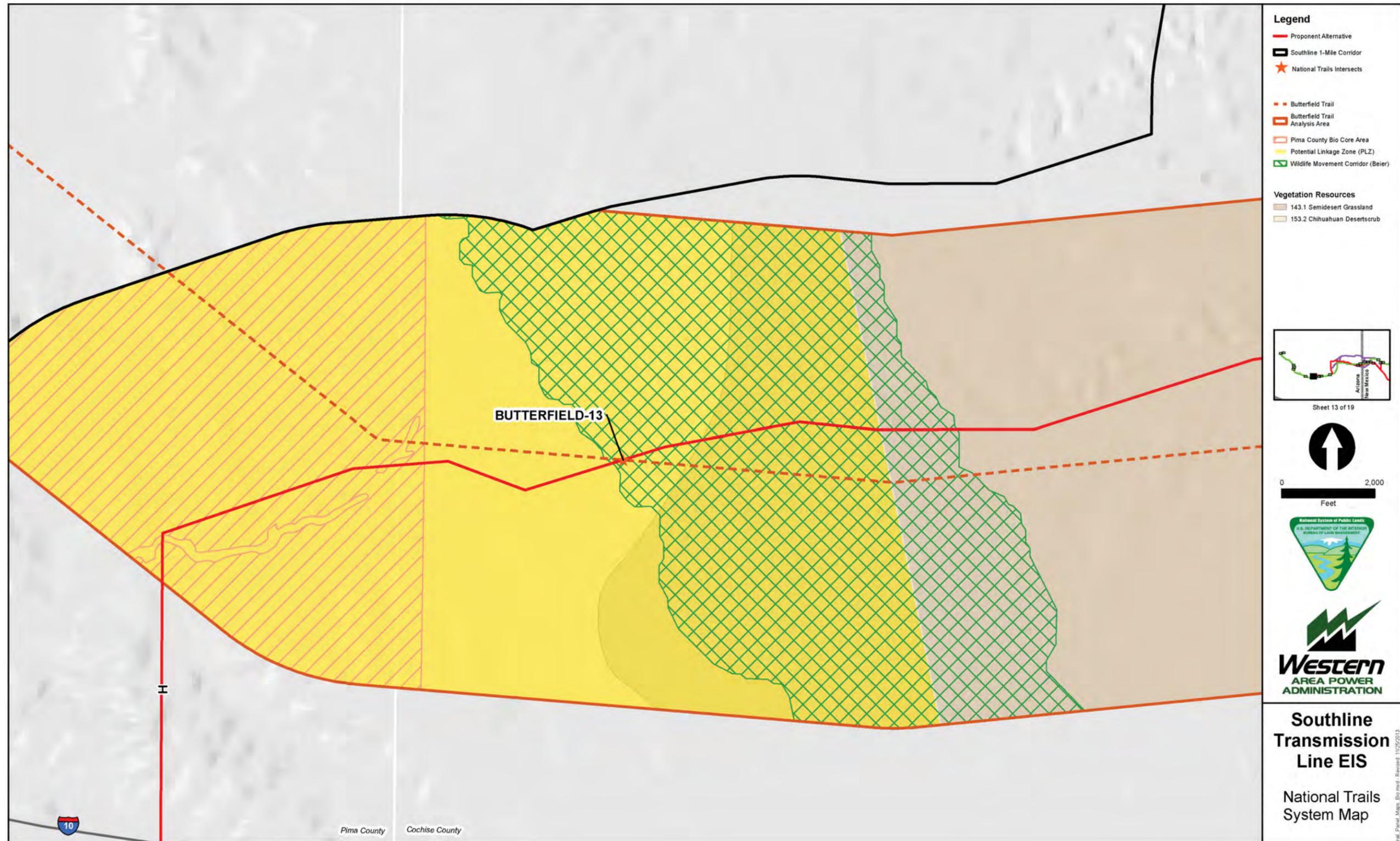
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1 **Figure F-34.** Detailed trail inventory for cultural, biological, and other natural resources (Panel 12).



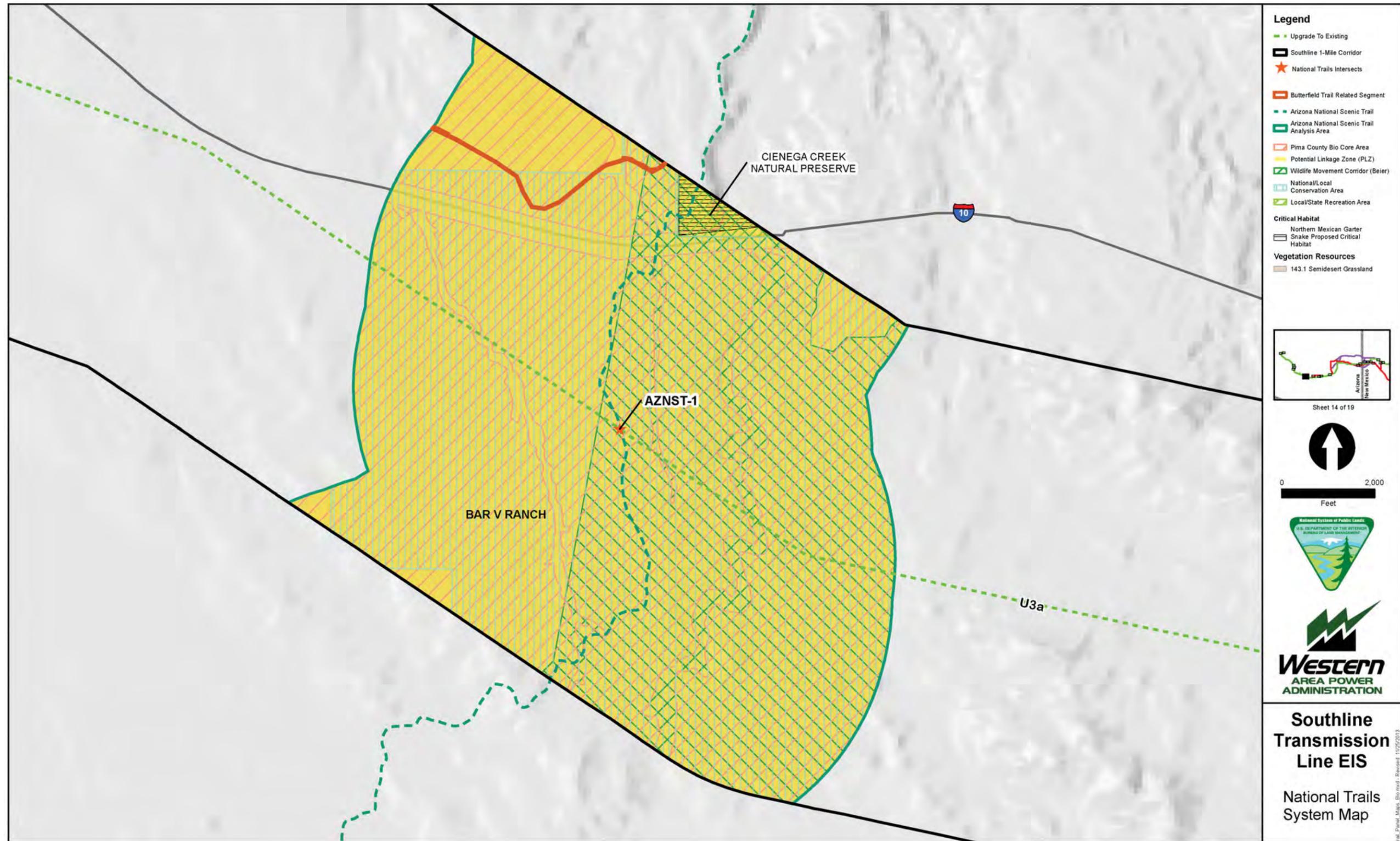
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1 **Figure F-35.** Detailed trail inventory for cultural, biological, and other natural resources (Panel 13).



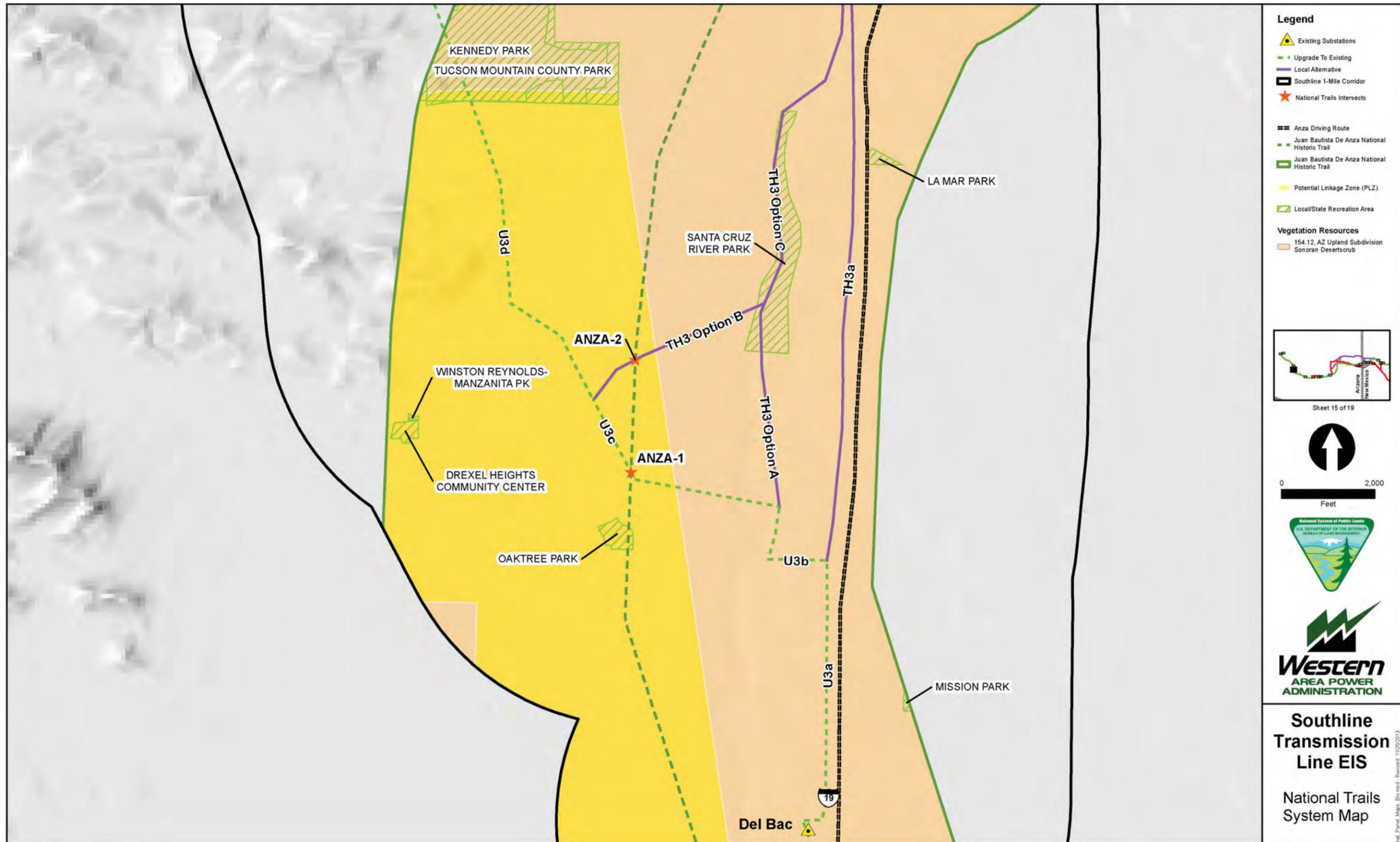
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1 **Figure F-36.** Detailed trail inventory for cultural, biological, and other natural resources (Panel 14).



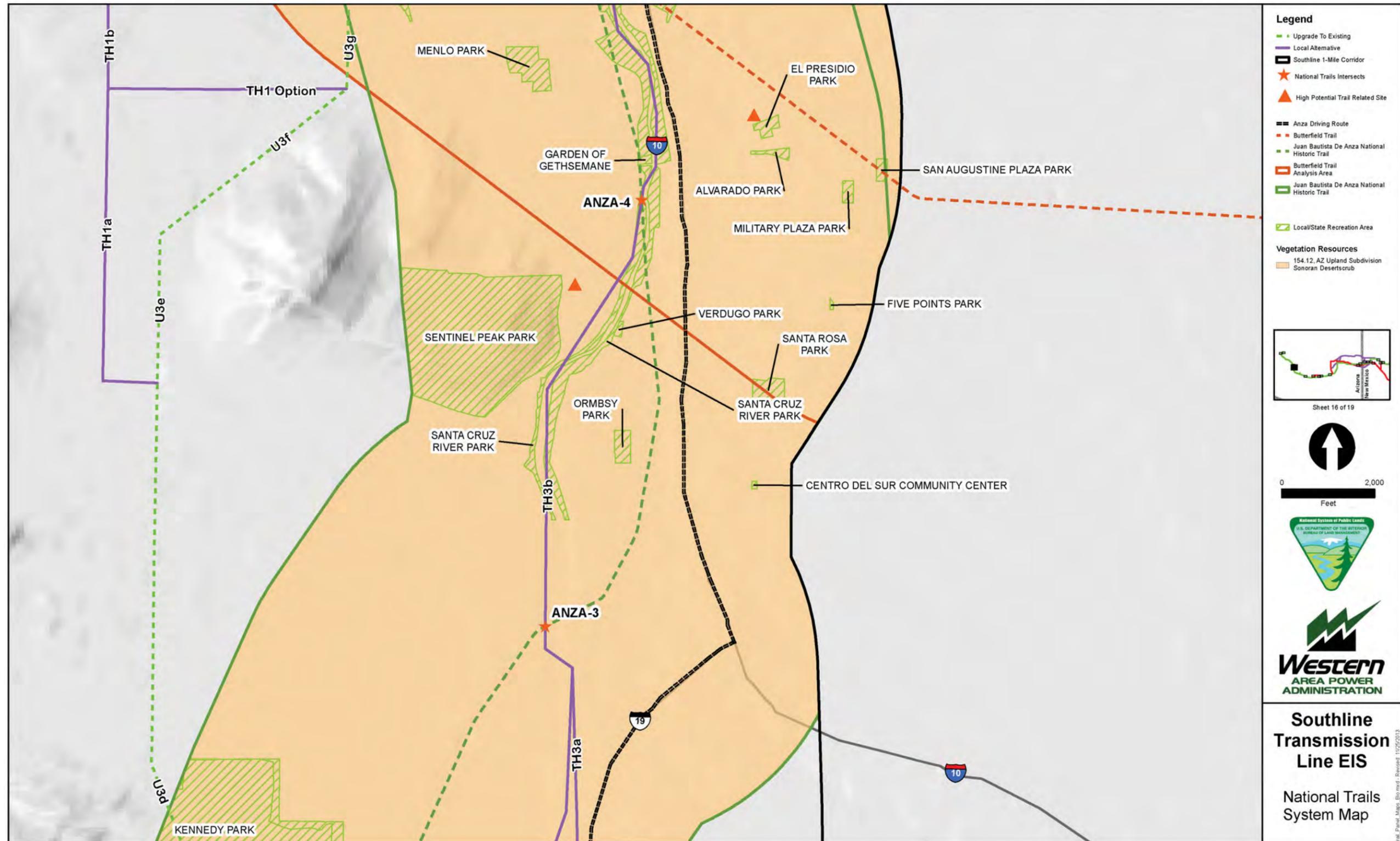
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1 **Figure F-37.** Detailed trail inventory for cultural, biological, and other natural resources (Panel 15).



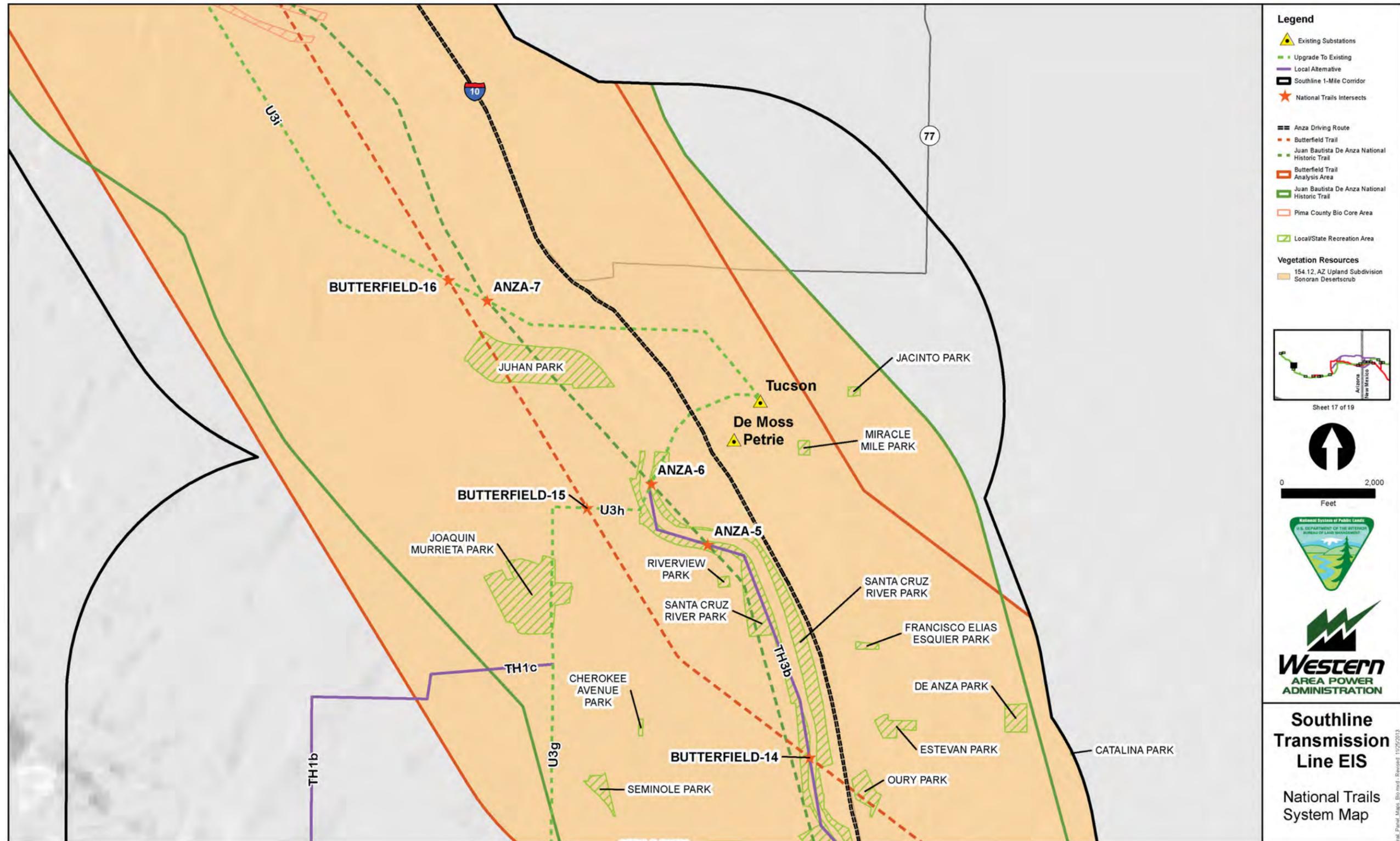
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1 **Figure F-38.** Detailed trail inventory for cultural, biological, and other natural resources (Panel 16).



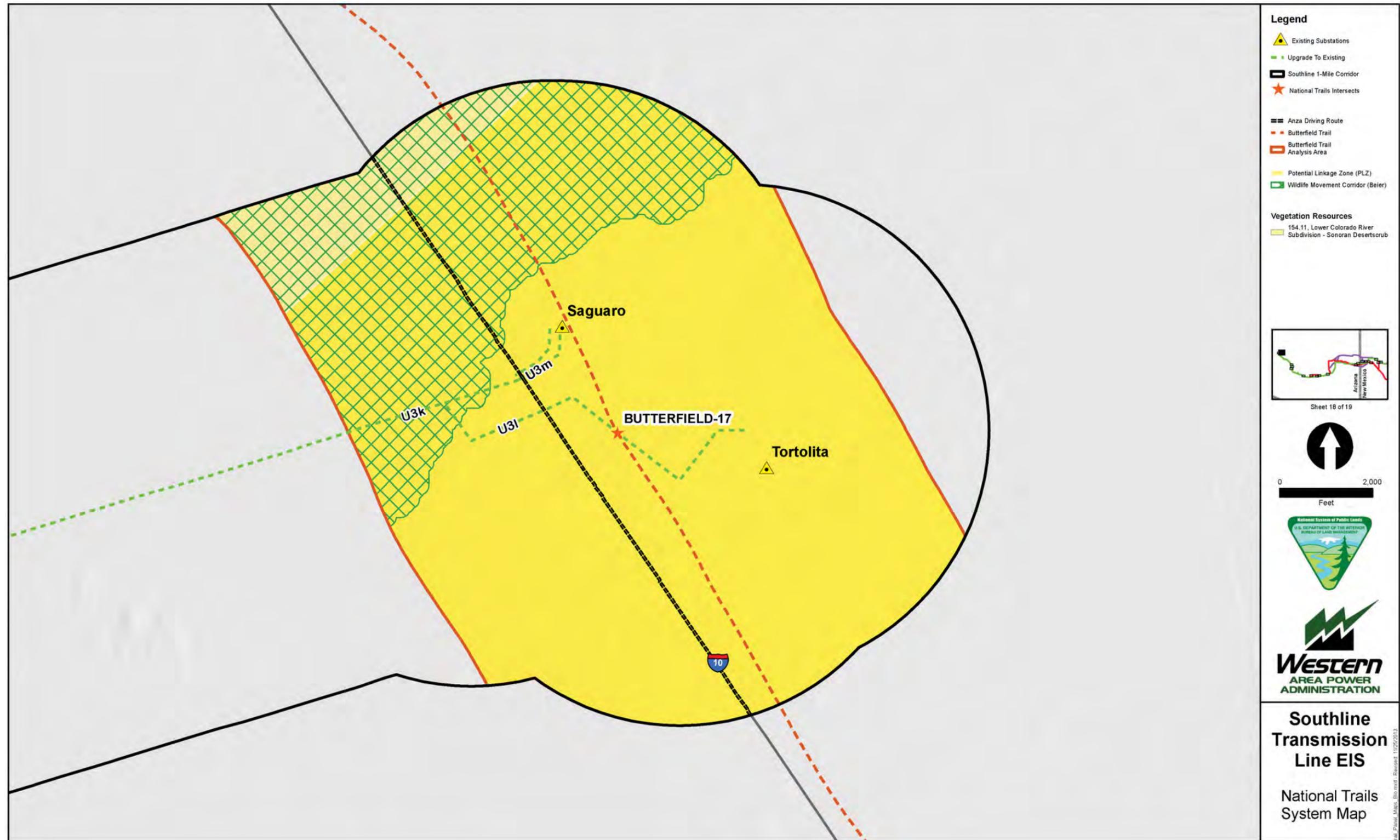
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1 **Figure F-39.** Detailed trail inventory for cultural, biological, and other natural resources (Panel 17).



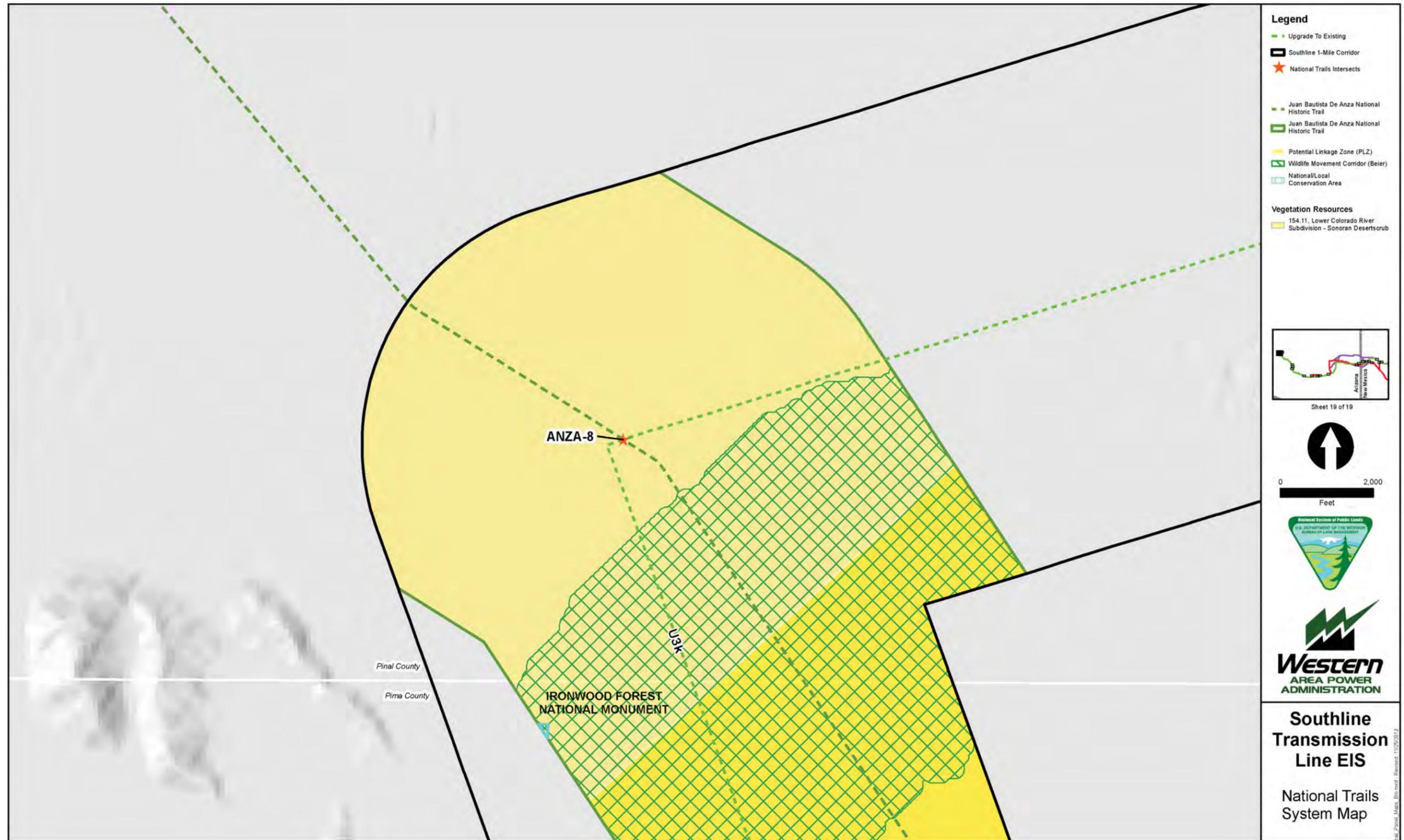
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1 **Figure F-40.** Detailed trail inventory for cultural, biological, and other natural resources (Panel 18).



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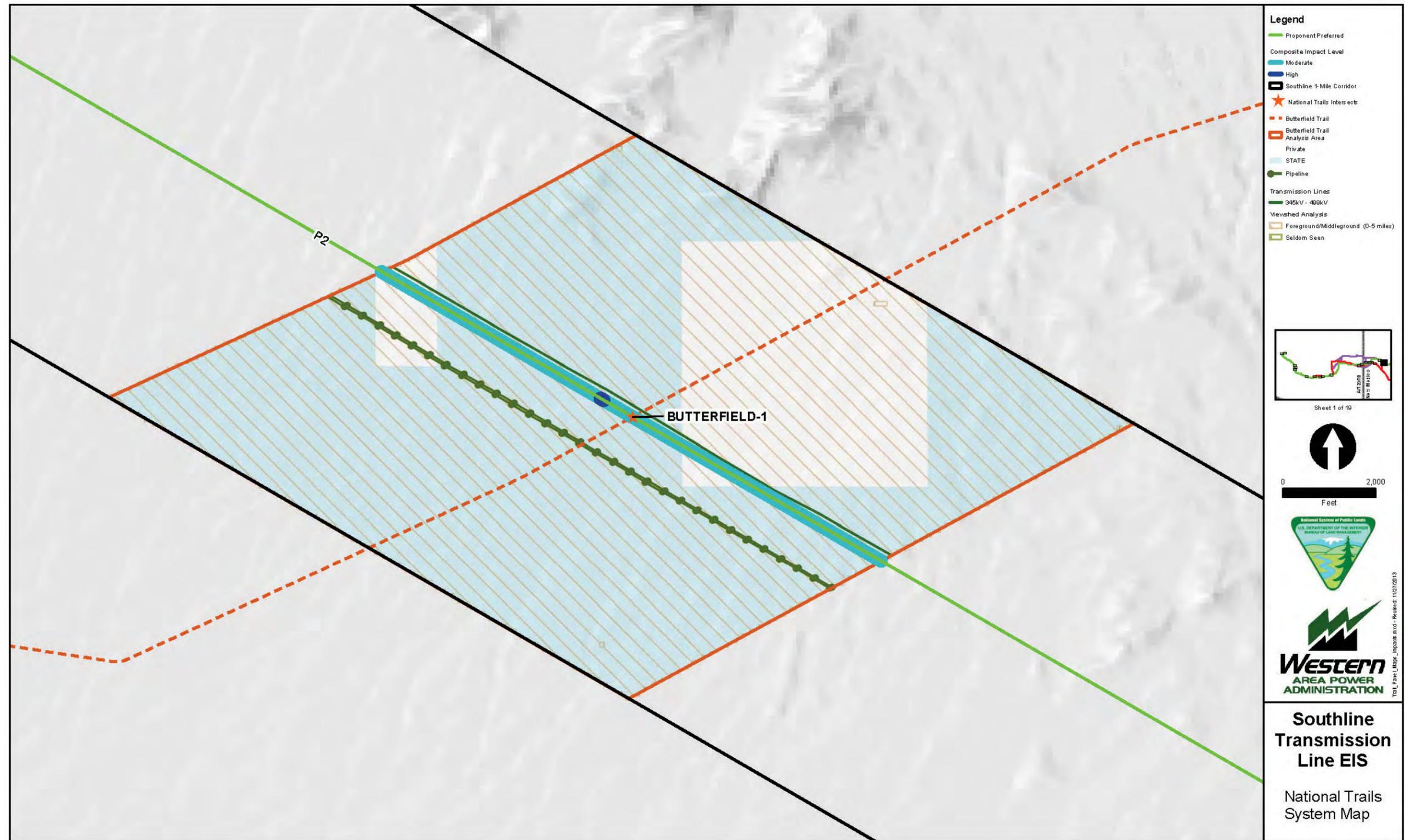
1 **Figure F-41.** Detailed trail inventory for cultural, biological, and other natural resources (Panel 19).



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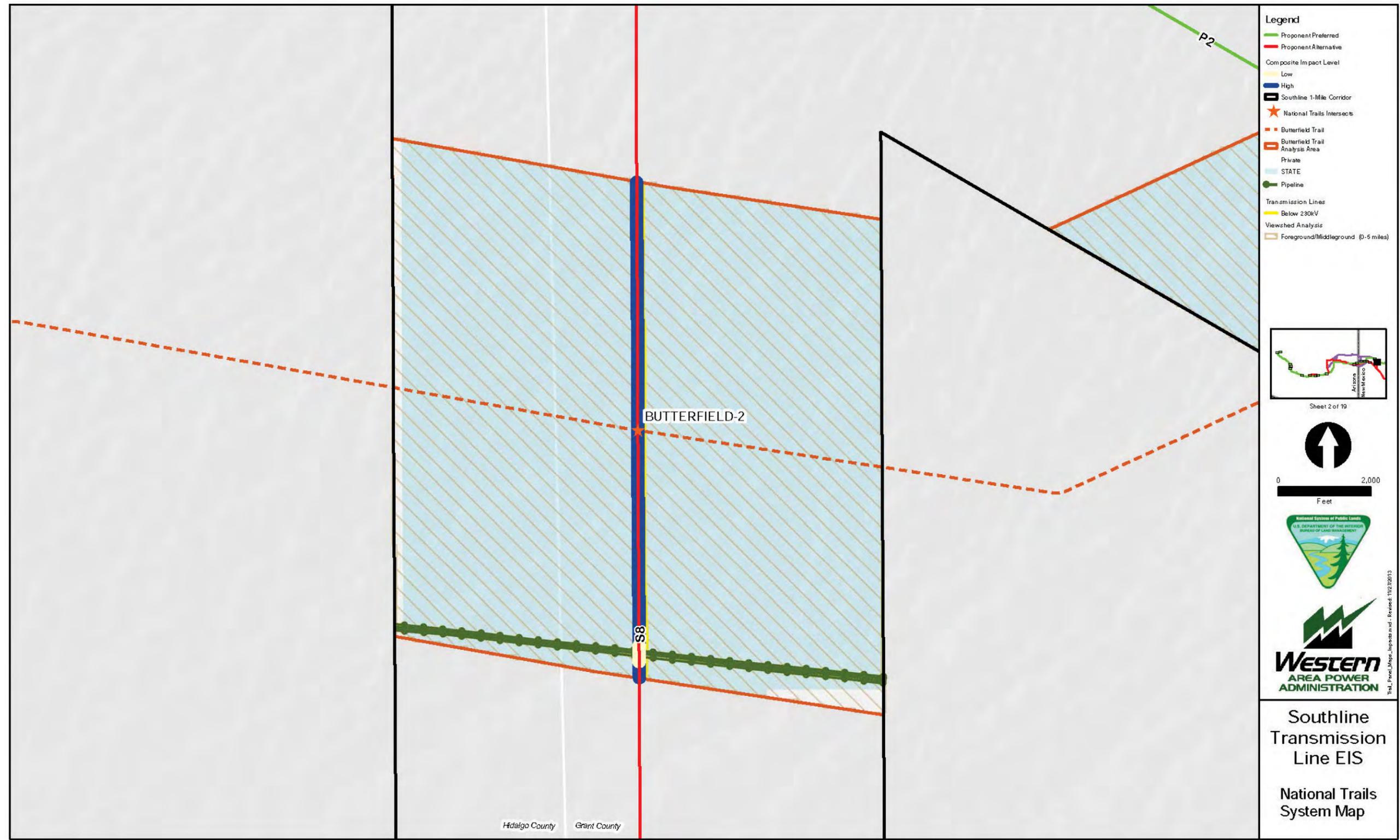
Figure F-42. Composite impact assessment results (Panel 1).



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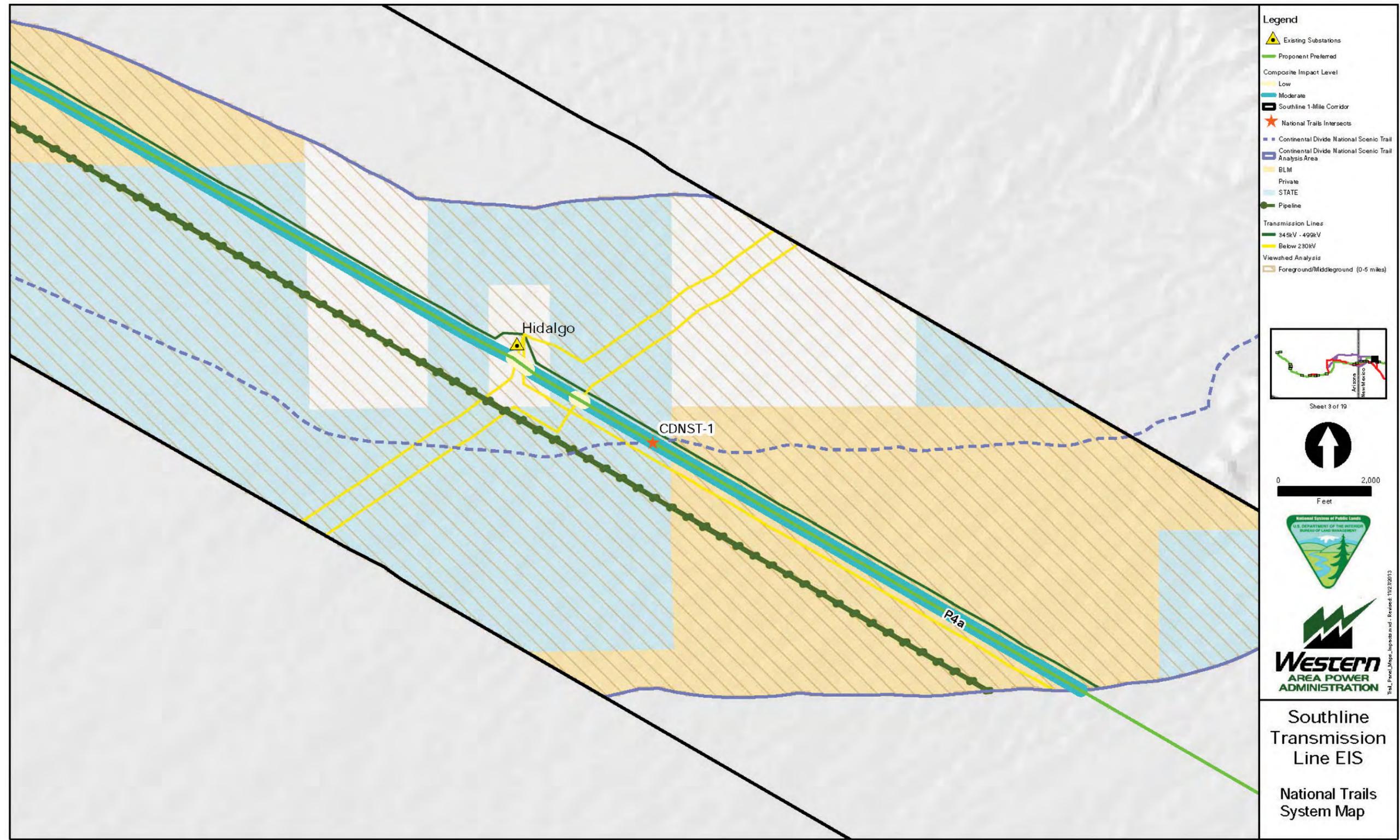
Figure F-43. Composite impact assessment results (Panel 2).



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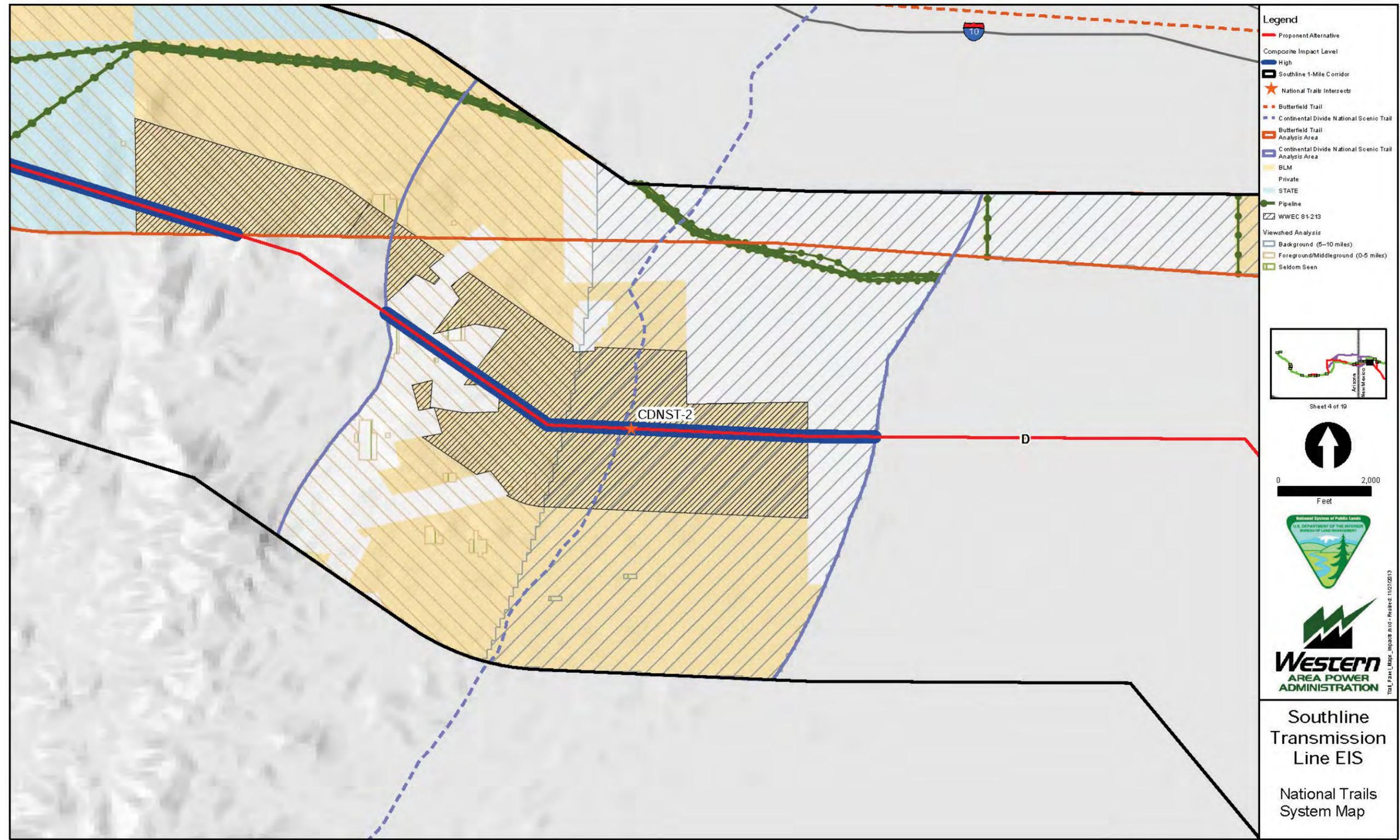
Figure F-44. Composite impact assessment results (Panel 3).



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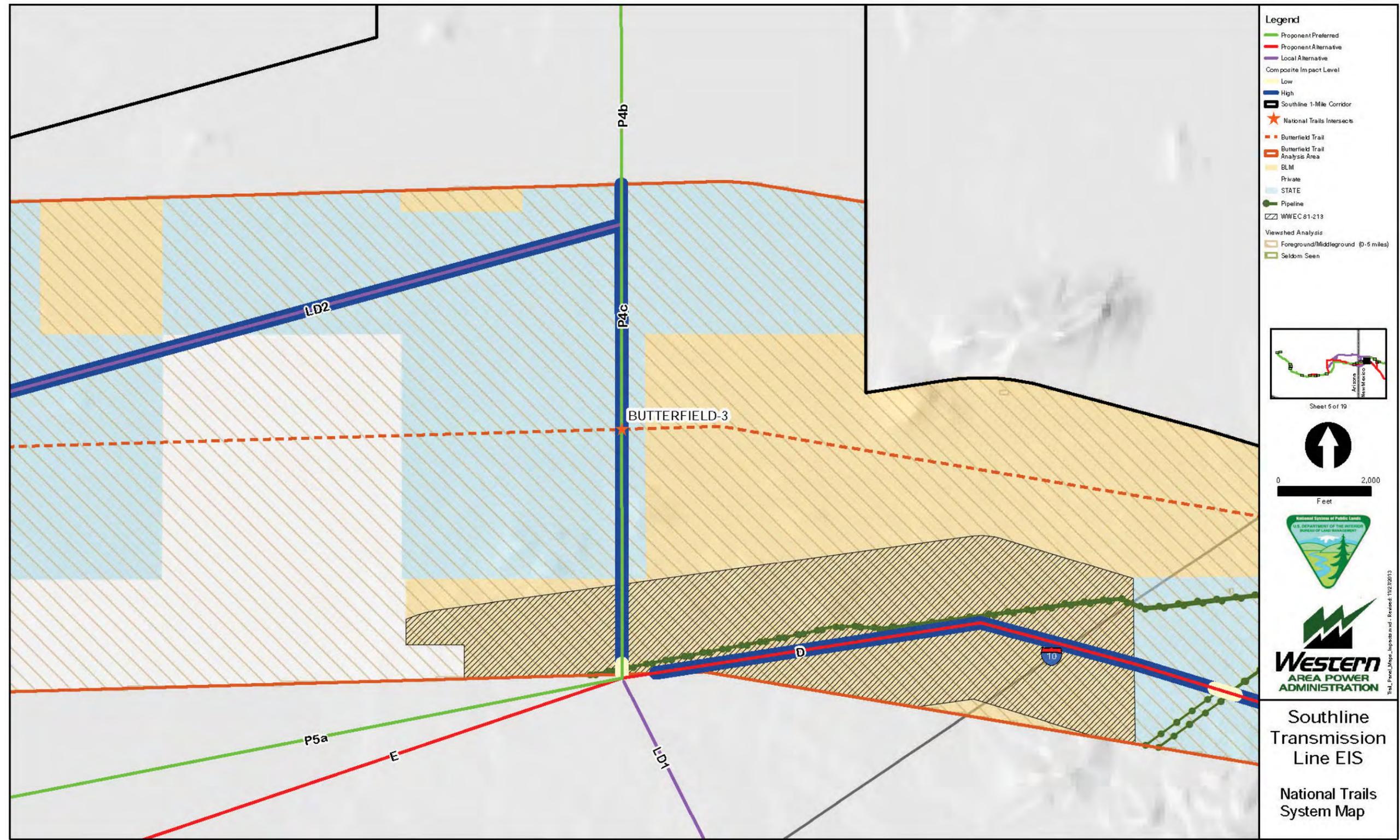
Figure F-45. Composite impact assessment results (Panel 4).



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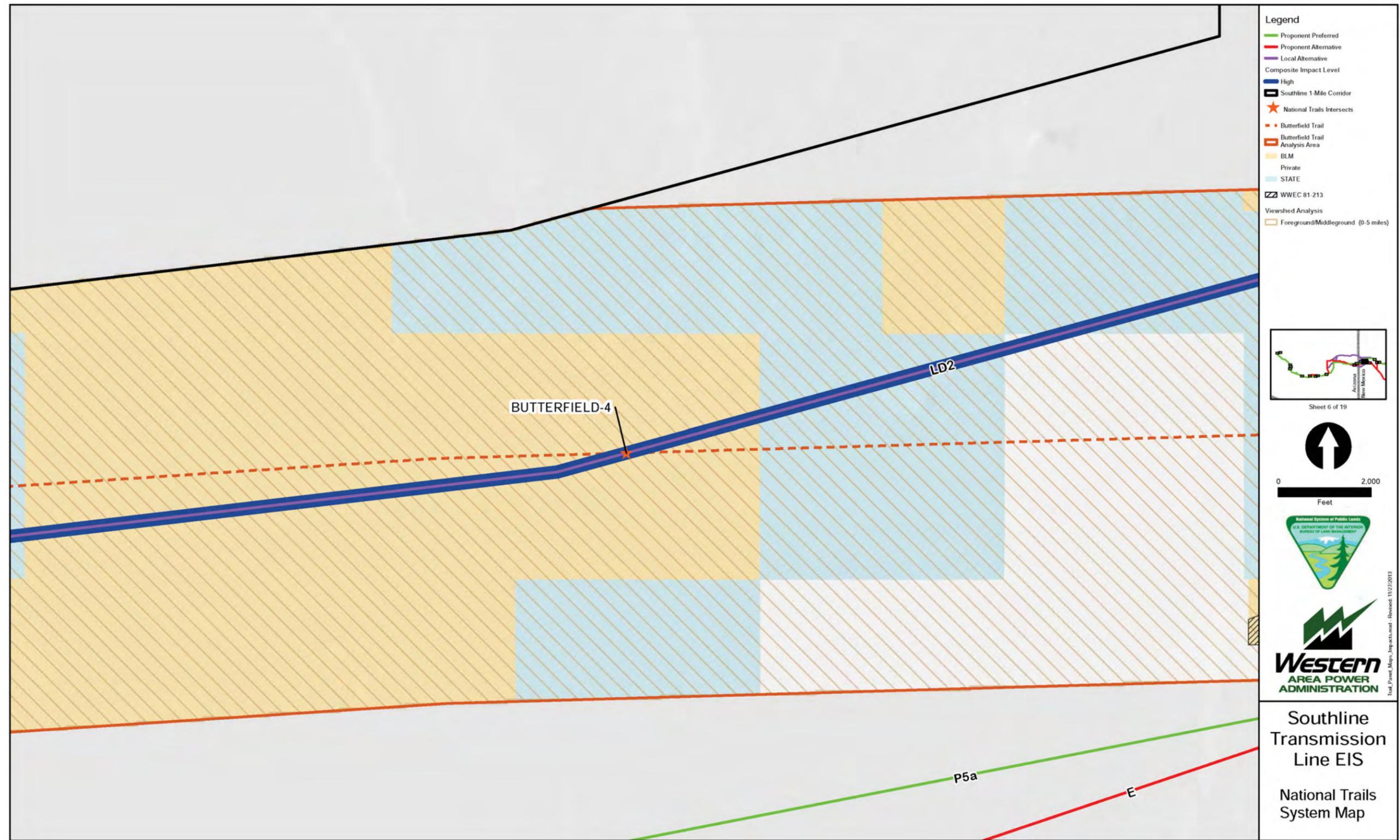
Figure F-46. Composite impact assessment results (Panel 5).



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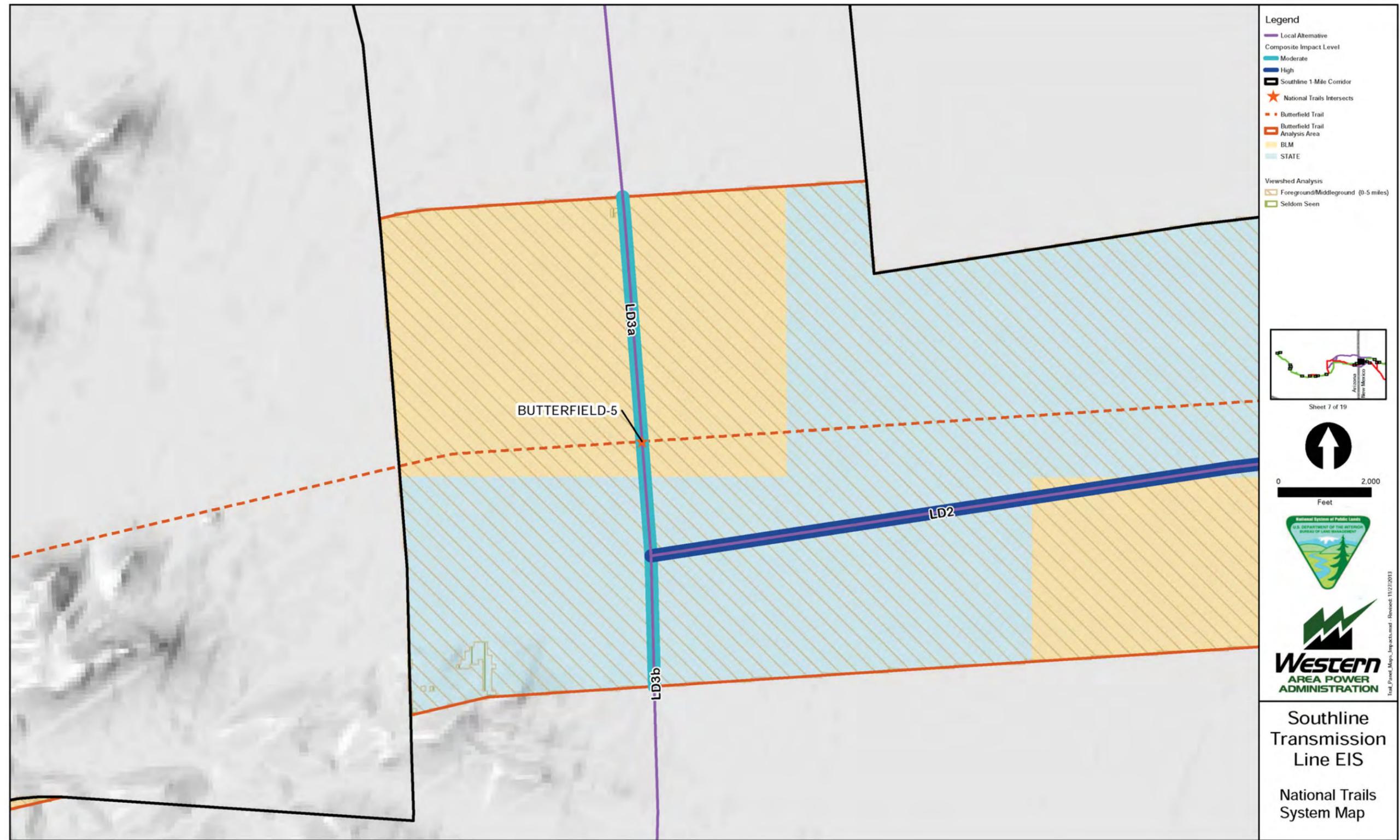
Figure F-47. Composite impact assessment results (Panel 6).



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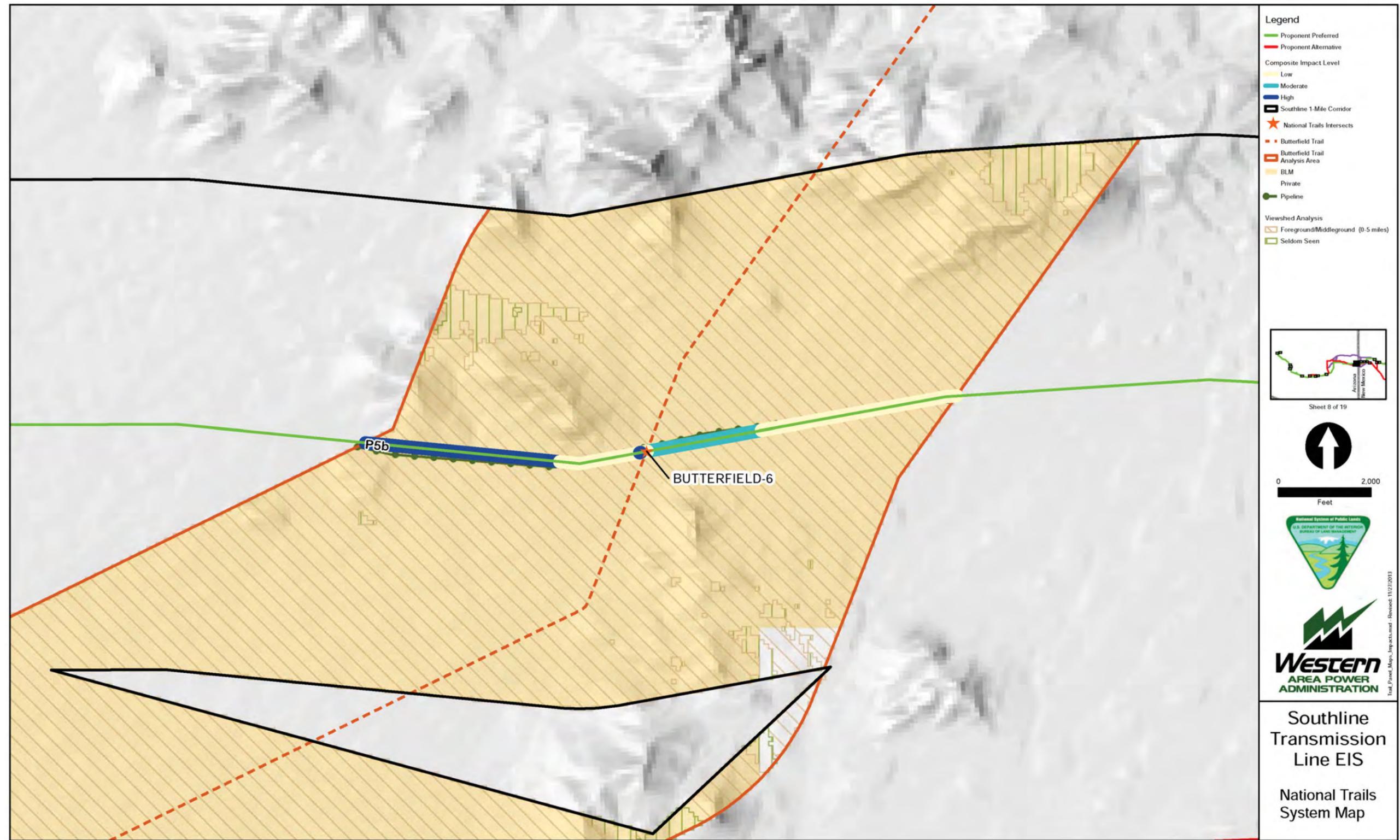
Figure F-48. Composite impact assessment results (Panel 7).



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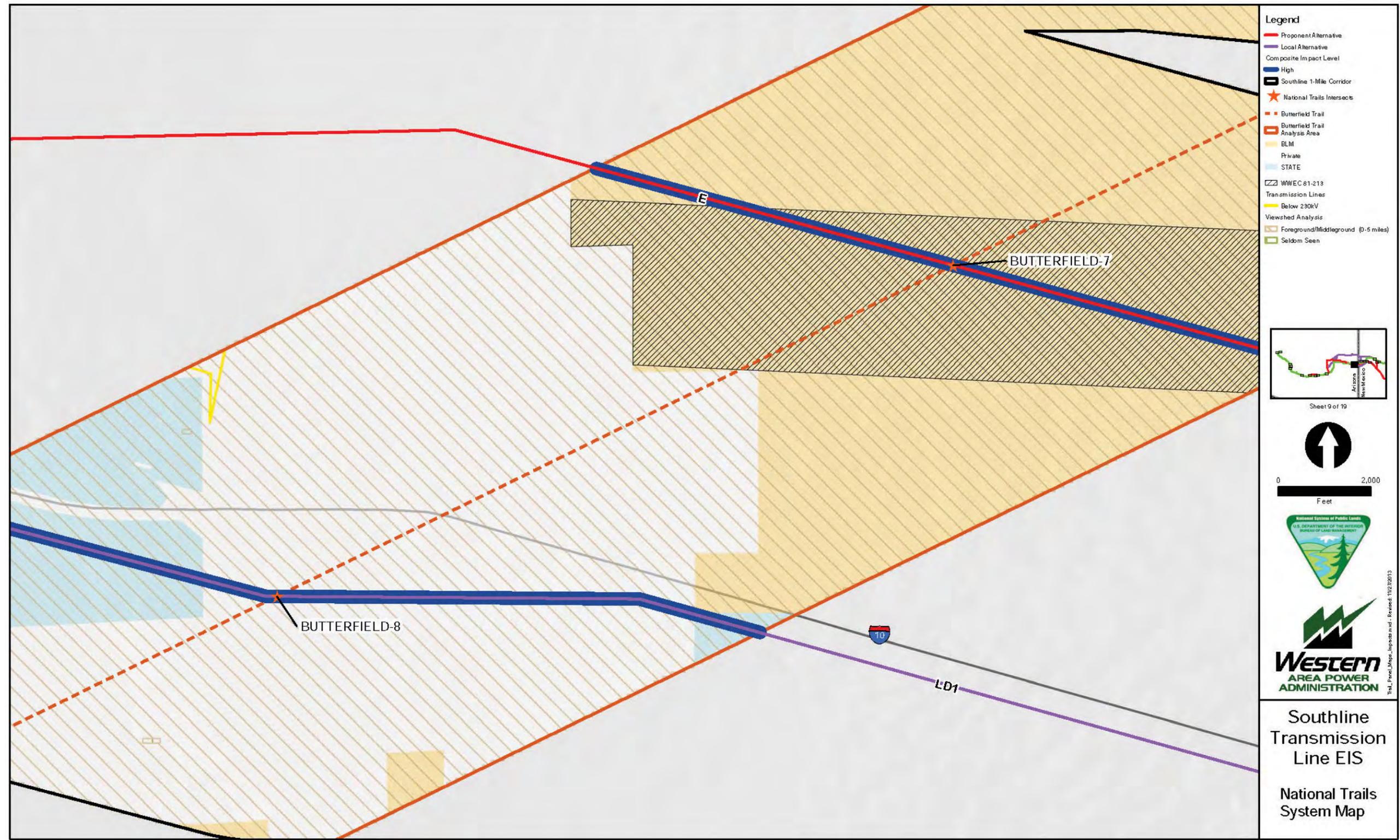
Figure F-49. Composite impact assessment results (Panel 8).



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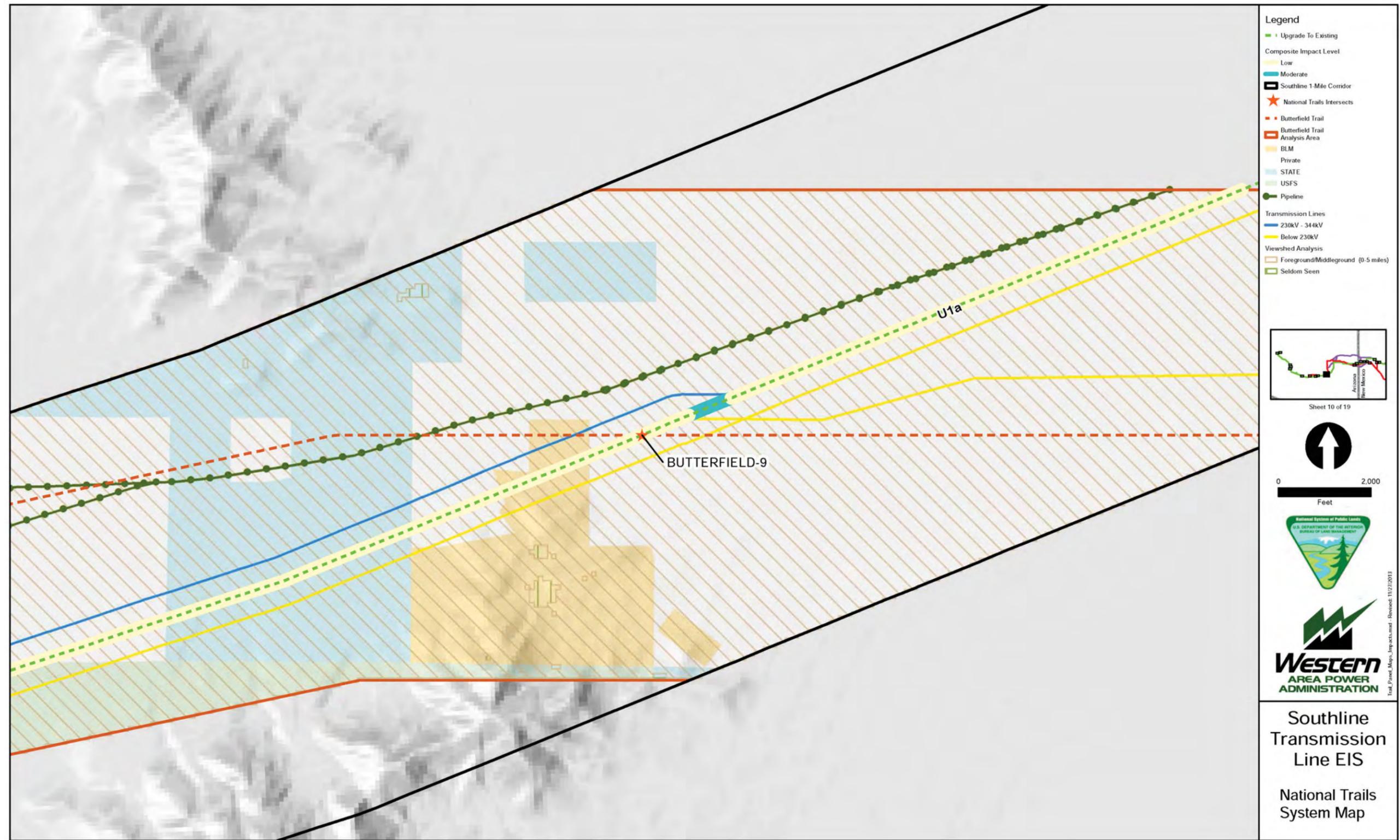
Figure F-50. Composite impact assessment results (Panel 9).



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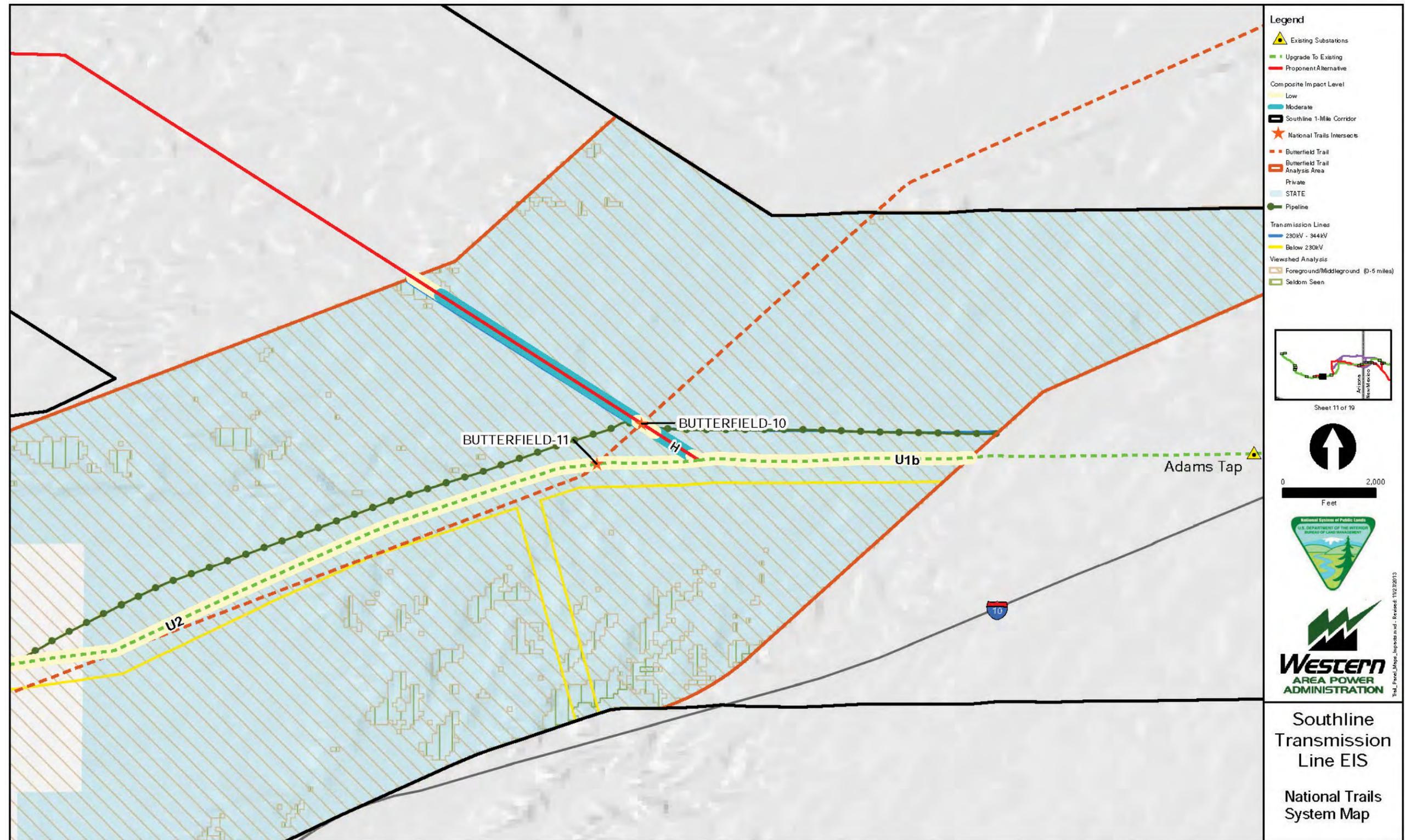
Figure F-51. Composite impact assessment results (Panel 10.)



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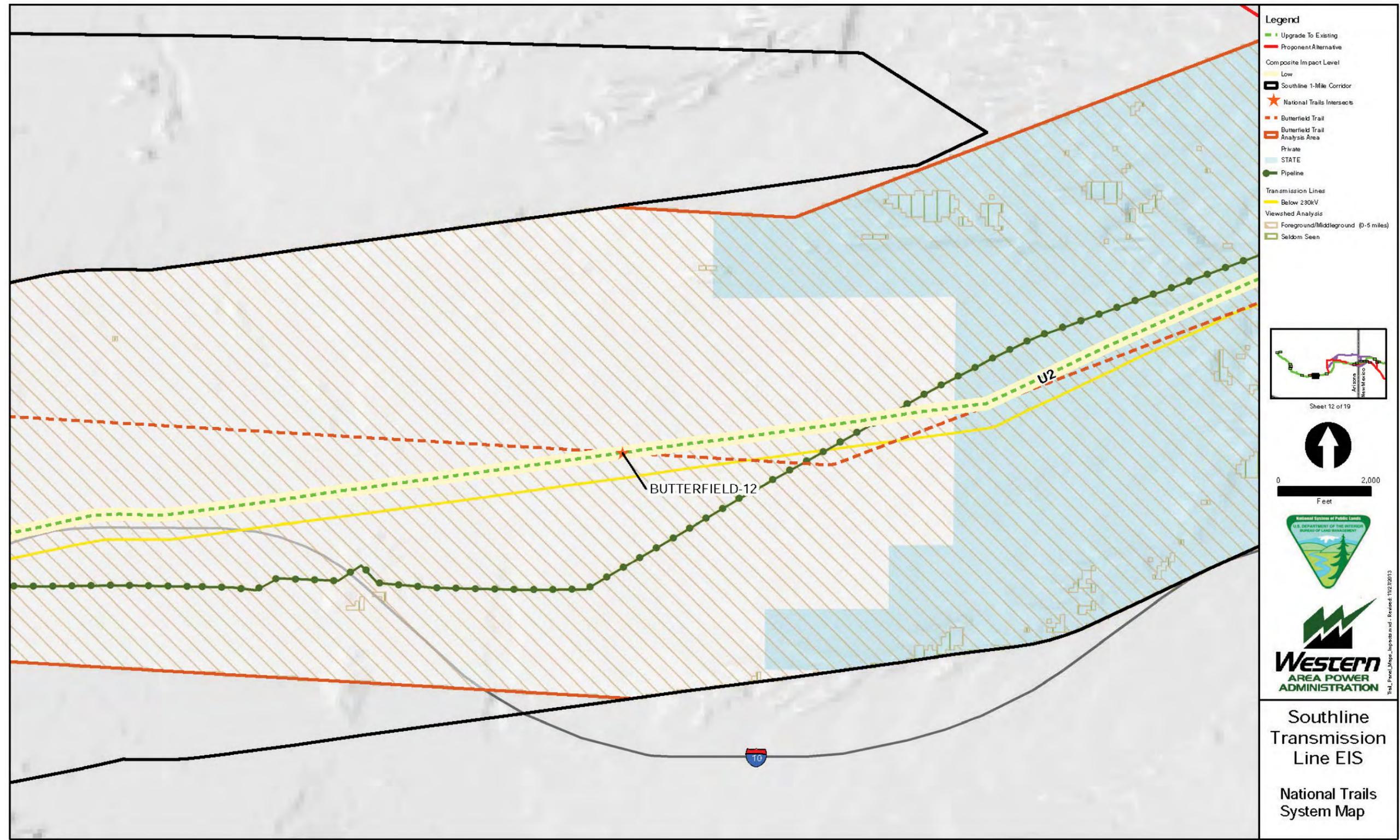
Figure F-52. Composite impact assessment results (Panel 11).



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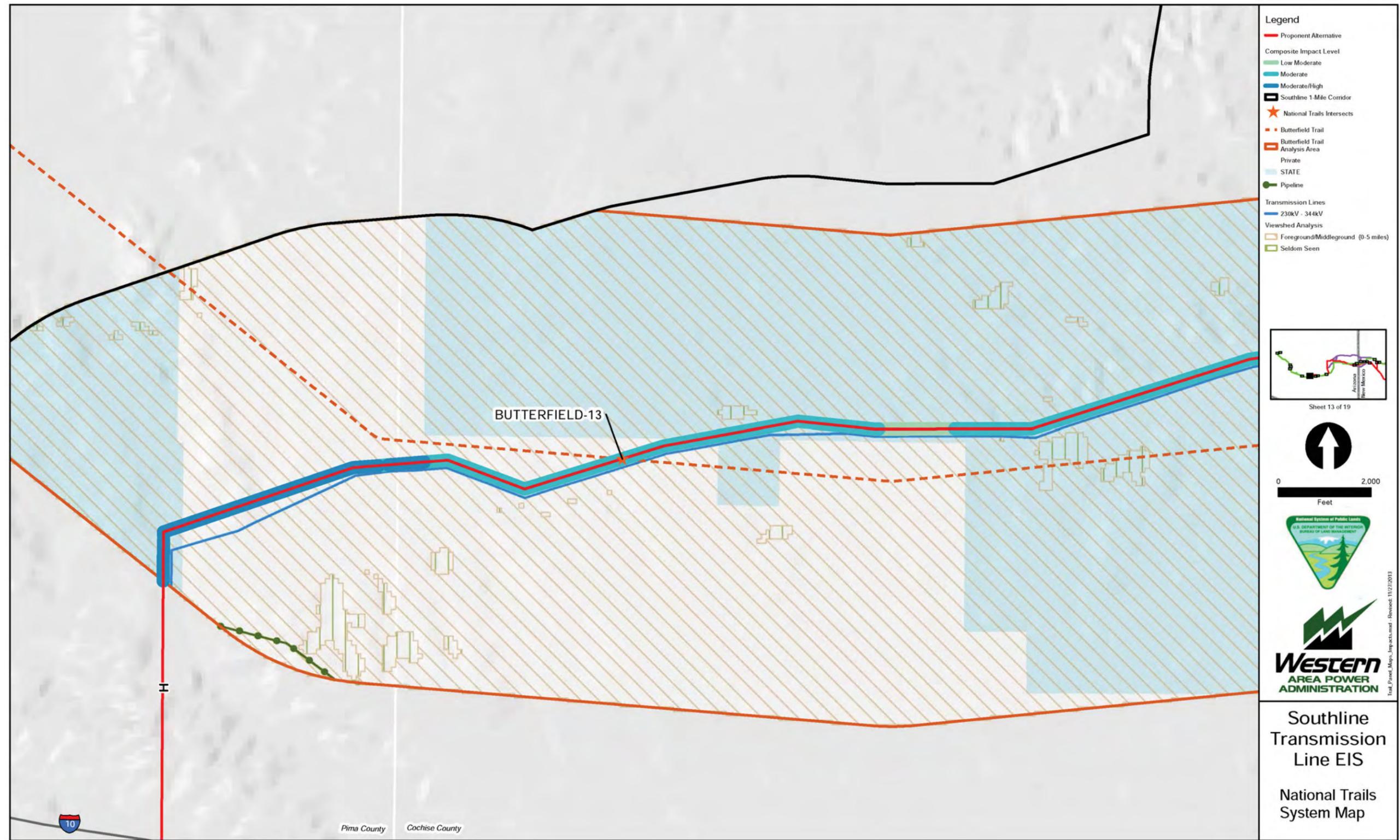
Figure F-53. Composite impact assessment results (Panel 12).



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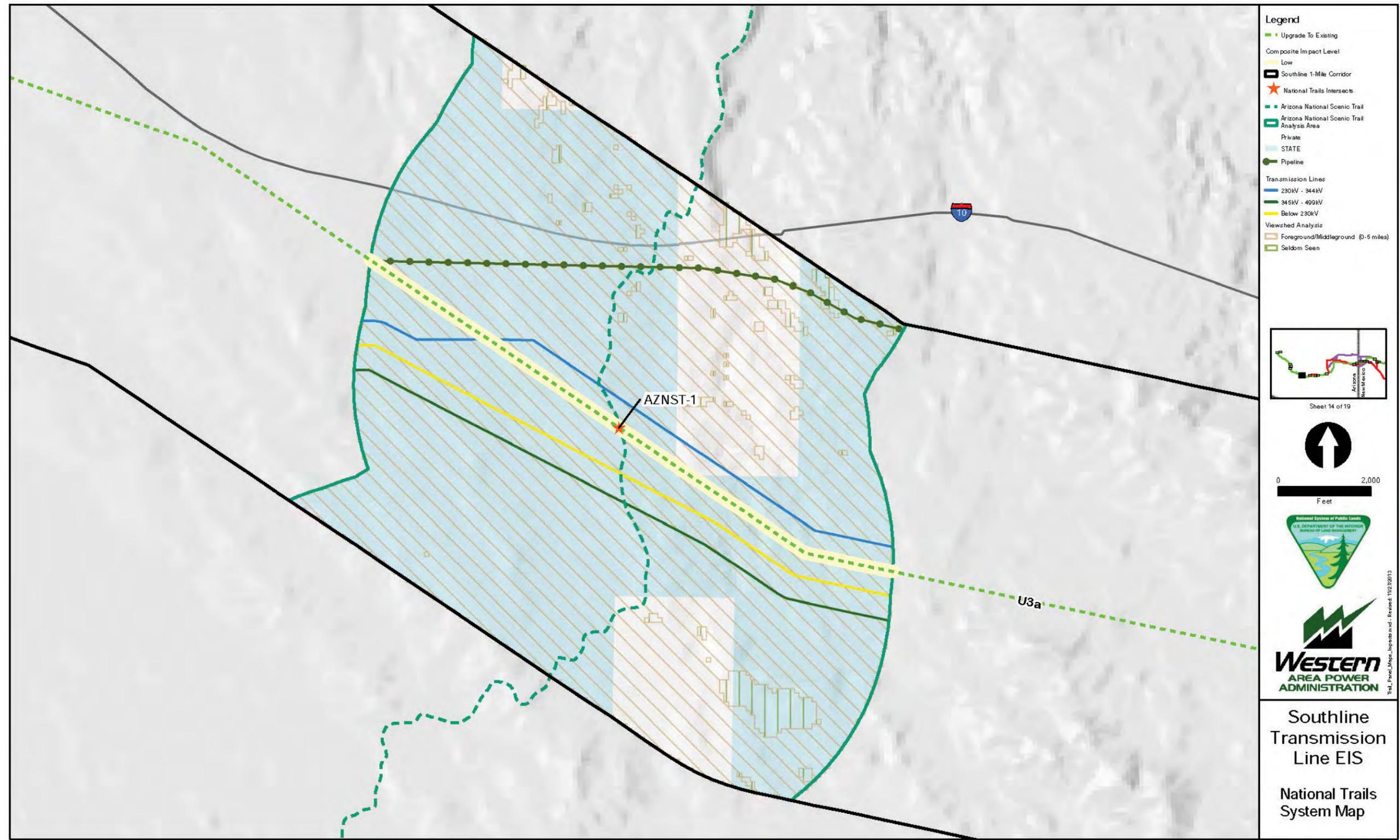
Figure F-54. Composite impact assessment results (Panel 13).



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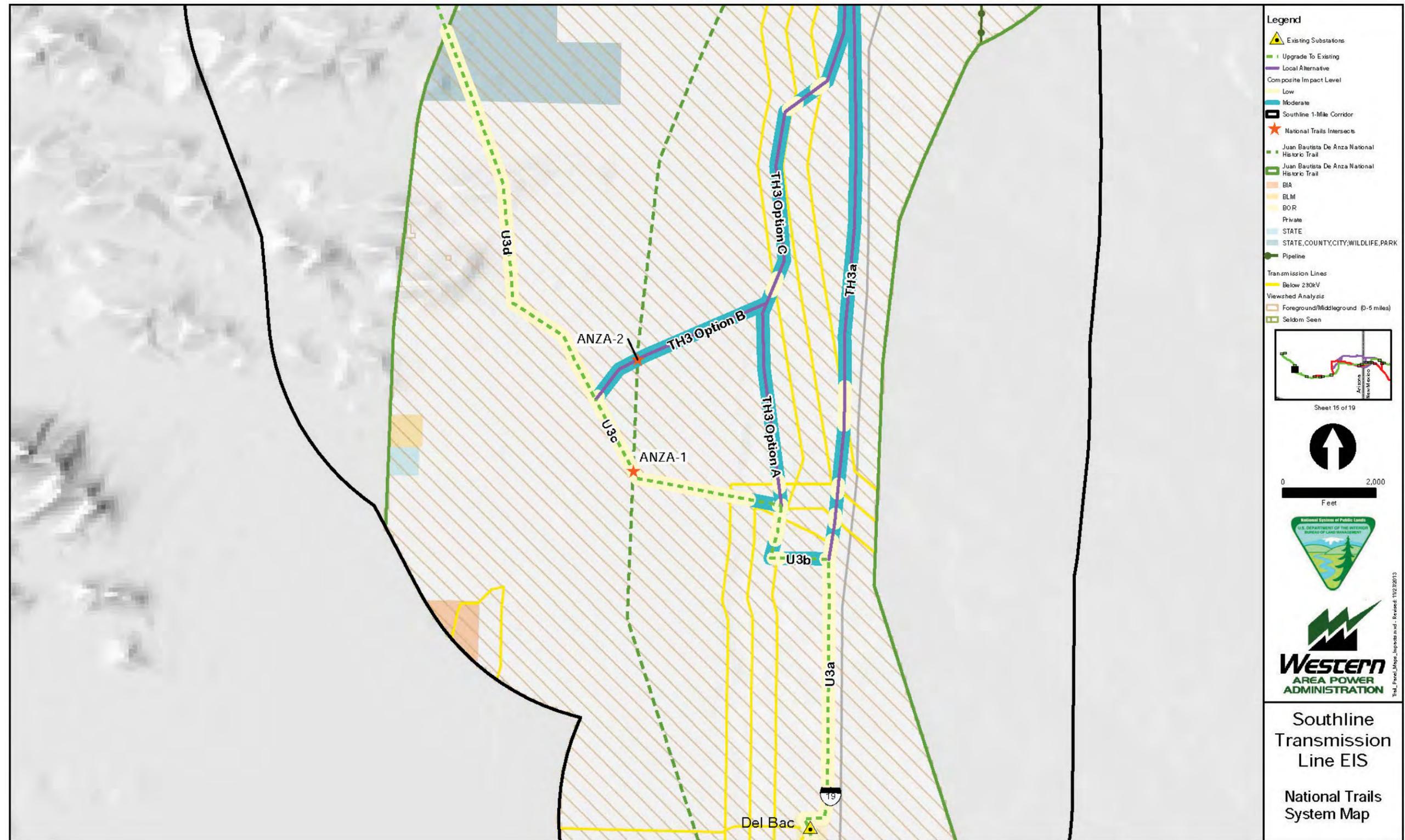
Figure F-55. Composite impact assessment results (Panel 14).



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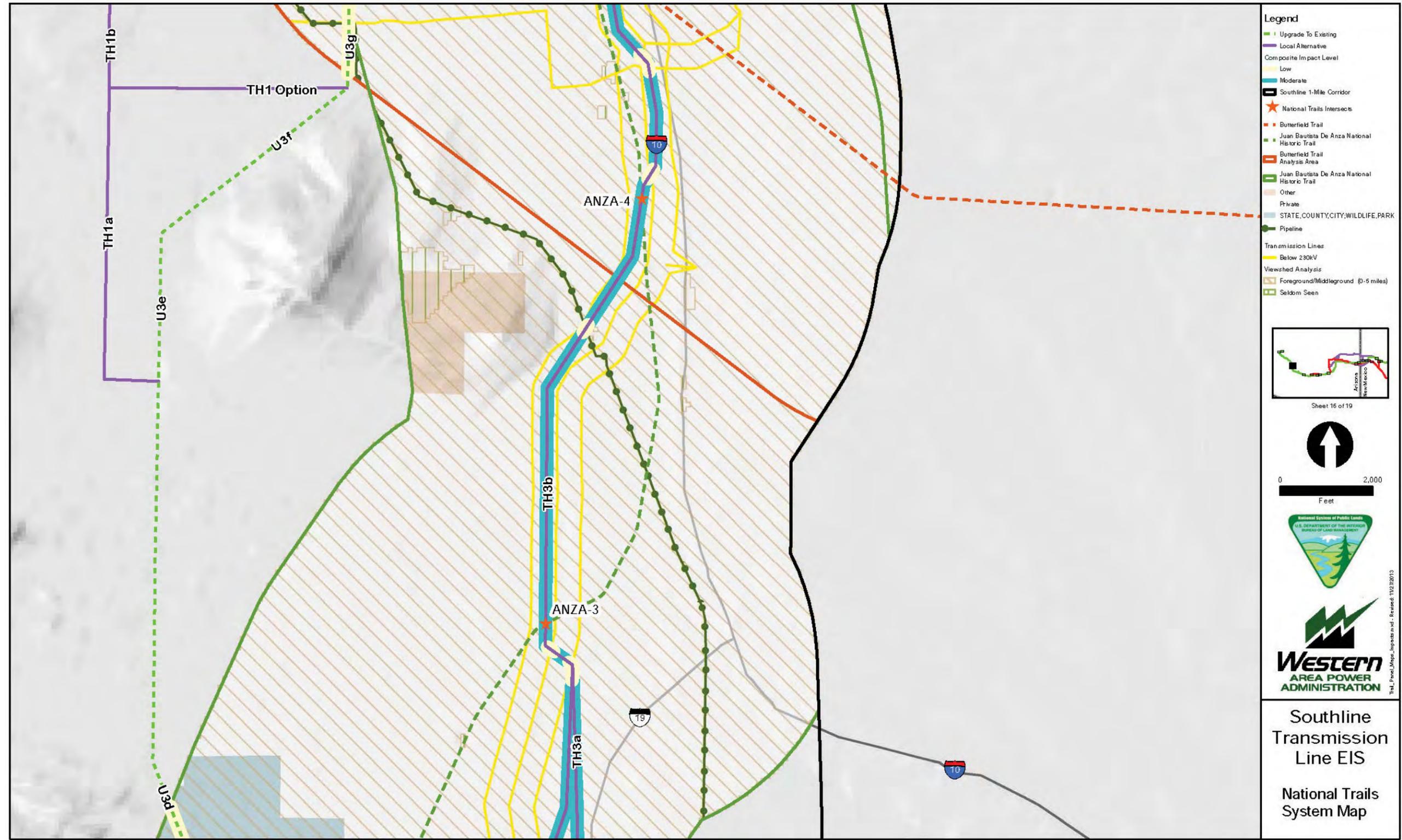
Figure F-56. Composite impact assessment results (Panel 15).



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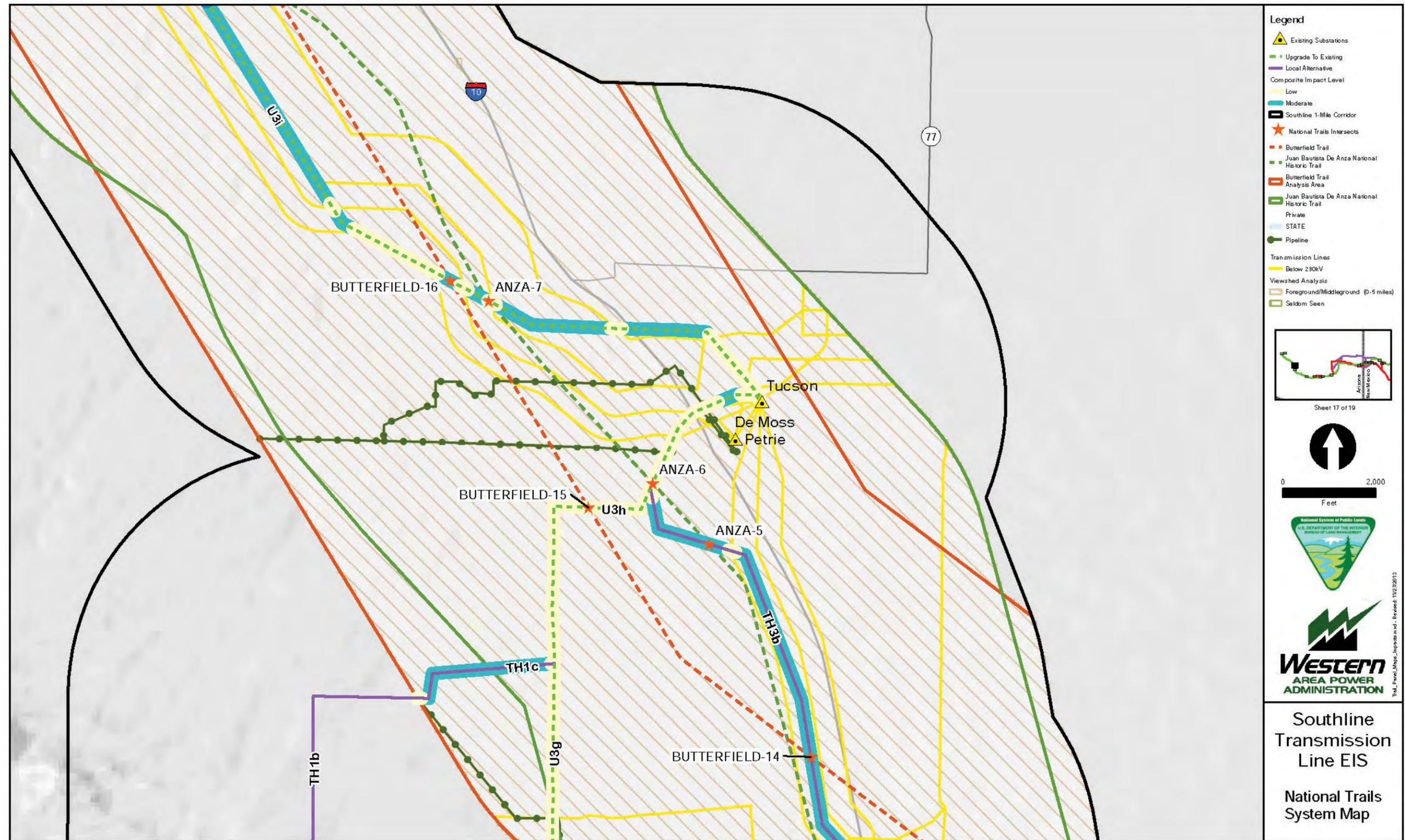
Figure F-57. Composite impact assessment results (Panel 16).



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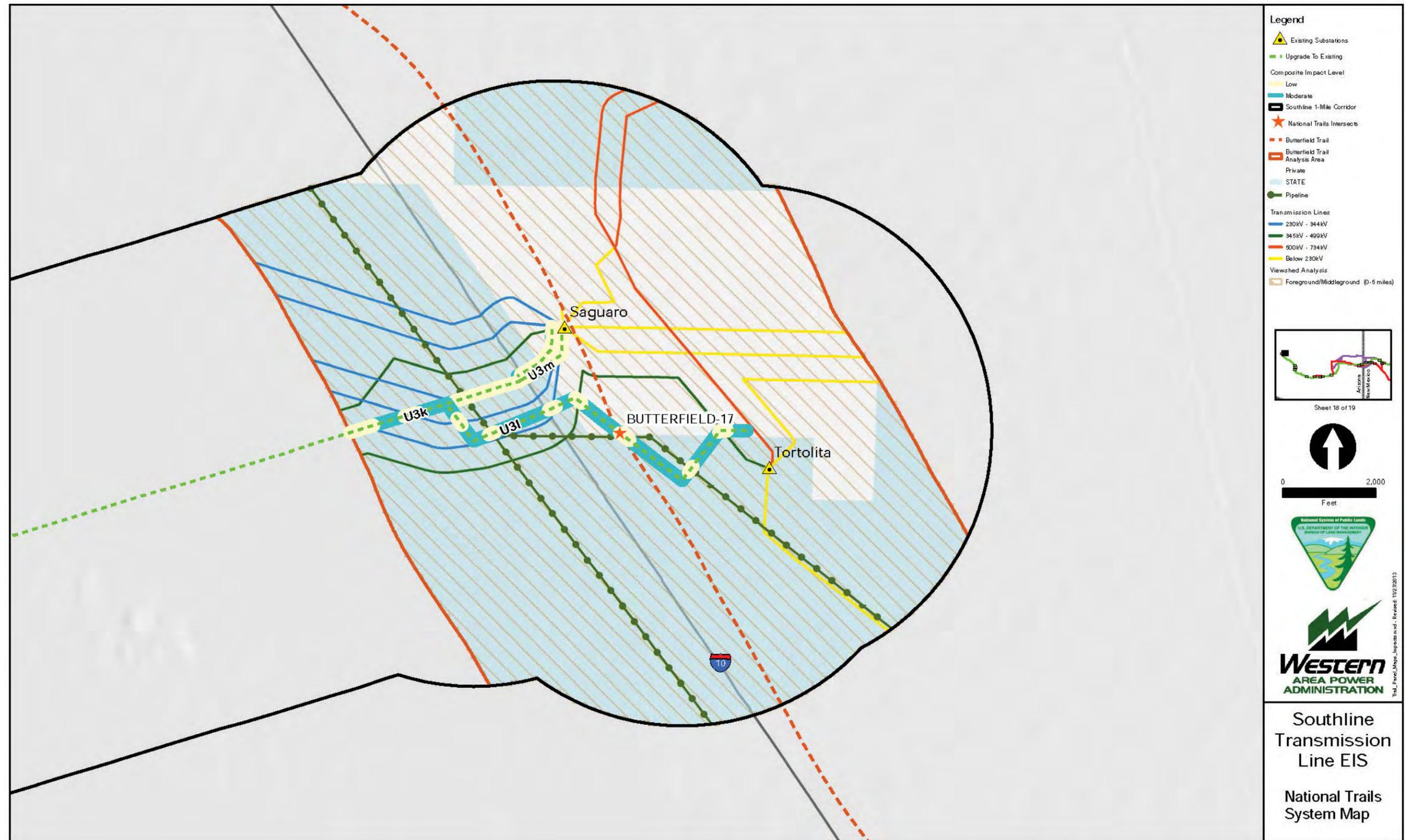
Figure F-58. Composite impact assessment results (Panel 17).



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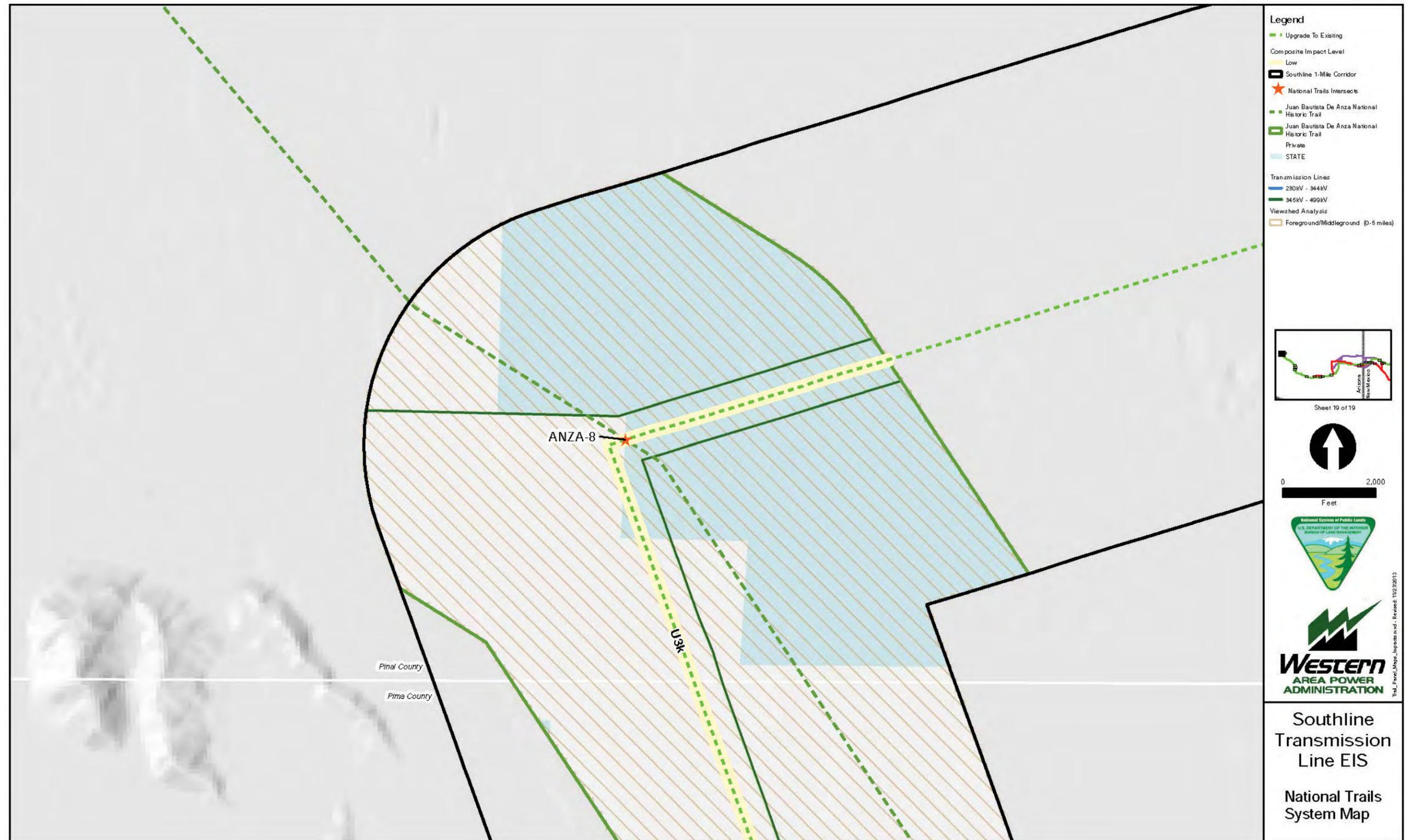
Figure F-59. Composite impact assessment results (Panel 18).



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



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1 **Appendix G**

2 **CULTURAL RESOURCES WITHIN THE REPRESENTATIVE**
3 **RIGHT-OF-WAY**

1 **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

1 **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

1 **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

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1 **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

1 **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					None
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	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

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1 **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

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1 **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

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1 **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

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1 **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

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1 **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

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1 **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

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1 **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

1 **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

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1 **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

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1 **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

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1 **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

1 **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

1 **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	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

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1 **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
Route group 2	LD4	None	Transportation	Historic	Road			1	Unevaluated -- Mapped Resource					None

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1 **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	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

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1 **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

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1 **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

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1 **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

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1 **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

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1 **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

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1 **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

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1 **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

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1 **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

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1 **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

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1 **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

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1 **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

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1 **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

1 **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

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1 **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

1 **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

1 **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

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1 **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

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1 **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

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1 **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

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1 **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

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1 **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

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1 **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

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1 **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

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1 **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

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1 **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

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1 **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	1	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

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1 **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

1 **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

1 **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

1 **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

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1 **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

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1 **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

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1 **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

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1 **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

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1 **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

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1 **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

1 **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

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1 **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

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1 **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

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1 **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

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1 **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

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1 **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

1 **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

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1 **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

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1 **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

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