



Bureau Of Land Management and New Mexico State Lands Office, Dingell Act Land Exchange

SOCIOECONOMIC FEASIBILITY REPORT

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**New Mexico State Office
301 Dinosaur Trail
Santa Fe NM 87502-0115**

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ACRONYMS AND ABBREVIATIONS

Full Phrase

AOI	area of interest
AUM	animal unit month
BEA	US Department of Commerce, Bureau of Economic Analysis
BLM	US Department of the Interior, Bureau of Land Management
Census Bureau	US Department of Commerce, Census Bureau
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
DNI	direct normal irradiance
DO	District Office
FL	federal land
FLPMA	Federal Land Policy and Management Act of 1976
FO	Field Office
GIS	geographic information system
GMU	game management unit
GRT	gross receipt tax
NAGPRA	Native American Graves Protection and Repatriation Act of 1990
NEPA	National Environmental Policy Act of 1969
NM	New Mexico
PILT	payments in lieu of taxes
RMP	resource management plan
ROW	right-of-way
SLO	New Mexico State Land Office
STL	state trust land
TCP	traditional cultural property
US	United States
USC	United States Code
USFWS	United States Department of the Interior, Fish and Wildlife Service

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Chapter I. Introduction

In accordance with the Dingell Act¹ (Public Law 116-9), Subtitle C, Part I, Section 1201(d)(3), the United States (US) Department of the Interior, Bureau of Land Management (BLM) was directed to enter into a land exchange agreement with the State of New Mexico for areas within and along the perimeter of the Organ Mountains-Desert Peaks National Monument.

As directed, the BLM and the New Mexico State Land Office (SLO) have worked to jointly identify state trust lands (STLs) and BLM-administered disposal lands for potential exchange in these areas. These parcels selected for potential exchange involve BLM and SLO tracts in Doña Ana, Hidalgo, and Luna Counties and may include BLM tracts in Catron, Grant, Otero, Sierra, and Socorro Counties. The agencies have worked to ensure that lands to be exchanged are “like for like” to abide by land exchange guidance and appraisal regulation. The difference in acreages proposed for exchange by the BLM and the SLO is due to the “value-for-value” nature of the exchange. Land values vary by location, development, and use potential.

Although the acreages may differ, all parties to the exchange must agree that the value of the lands being exchanged is equal before final acreages are determined. Final determination of parcels exchanged would be based on site-specific appraisals and input from ongoing reports examining the mineral potential, and characteristics of biological and cultural resources. All final decisions for the exchange of lands would follow Section 206 of the Federal Land Policy and Management Act of 1976 (FLPMA; 43 United States Code [USC] 1716).

The BLM’s additional goals with this exchange are to improve management efficiencies by disposing of scattered BLM parcels; removing the BLM’s administration of grazing on specific, isolated parcels of lands to create a more efficient process; and considering easement acquisition needs, while simultaneously providing economic benefits for the SLO and its beneficiaries, as agreed.

Part of the initial process includes preparation and approval of a feasibility package that consists of a report discussing the feasibility of the exchange, a formal proposal, and an agreement, which is referred to as an agreement to initiate for BLM leadership approval; this agreement is a required part of the project that must be approved before the notice of exchange proposal and National Environmental Policy Act (NEPA) notice of intent to publish an environmental assessment can be published in the *Federal Register*.

The purpose of this report is to provide information on current social and economic contexts and the current land use overview of the project to inform the feasibility report for overall approval of the land exchange. The report includes the current social and economic contributions of lands selected for exchange, and the proposed exchange’s potential social and economic impacts. This socioeconomic study area in this report includes all counties with any BLM or SLO parcels identified for potential exchange, including Doña Ana, Hidalgo, Luna, Catron, Grant, Otero, Sierra, and Socorro Counties. Final social and economic impacts may vary from those disclosed here based on final parcels included in the exchange, appraisal value of these parcels, market conditions, and other factors.

¹ John D. Dingell, Jr. Conservation, Management, and Recreation Act, Public Law 116-9—March 12, 2019

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Chapter 2. Baseline Data

In order to determine potential impacts from the proposed land exchange, baseline data for current social, demographic, and economic conditions in all affected counties were established. The baseline conditions data included current conditions and trends for demographics, including employment, income, housing poverty, and ethnic and minority status information. These data have been compiled using the Headwaters Economics Economic Profile System (Headwaters Economics 2020). In addition, data have been included for land status and federal land contributions for each county. Economic Profile System data are based on the most recently available federal data sources, including the US Department of Commerce, Bureau of Economic Analysis (BEA); US Department of Commerce, Census Bureau (Census Bureau); US Department of Labor, Bureau of Labor Statistics; and other sources. Summary tables for key demographic and economic metrics are provided in **Tables 2.1 to 2.6**, below.

2.1 POPULATION

Table 2.1, below, shows New Mexico’s population by county for 2000, 2010, and 2018. Over the past two decades, New Mexico has seen its population concentrated in more urban and populous counties, while smaller rural counties have seen a decrease in their populations. This is reflected in the socioeconomic study area trends over the time period examined; only Doña Ana and Otero Counties had an increase in population between 2000 and 2018, while Catron, Grant, Hidalgo, Luna, Sierra, and Socorro Counties experienced a reduction in population. In contrast, the state of New Mexico has seen an overall increase in population since 2000 (3.9 percent increase during the 2010–2018 period).

Table 2.1
New Mexico County Populations 2000-2018

Geographic Area	Population (2000)	Population (2010)	Population (2018)	Population Change (2010–2018)	Population Percent Change (2010–2018)
Catron County	3,543	3,652	3,539	(113)	(3.1)
Doña Ana County	174,690	201,670	215,338	13,668	6.8
Grant County	31,002	29,706	28,061	(1,645)	(5.5)
Hidalgo County	5,932	4,964	4,371	(593)	(11.9)
Luna County	25,016	25,252	24,264	(988)	(3.9)
Otero County	62,298	62,782	65,745	2,963	4.7
Sierra County	13,262	11,938	11,135	(803)	(6.7)
Socorro County	18,078	17,964	17,000	(964)	(5.4)
New Mexico	1,819,046	2,013,122	2,092,434	79,312	3.9
United States	281,421,906	303,965,272	322,903,030	18,937,758	6.2

Source: Census Bureau 2000, 2010, 2018, as reported in Headwaters Economics 2020

Note: American Community Survey 5-year estimates used for 2018 data; 2018 represents average characteristics from 2014 to 2018

() represent negative numbers

2.2 RACIAL AND ETHNIC DATA

Table 2.2 describes the estimated 2018 racial and ethnic composition of the socioeconomic study area. In 2018, Socorro, Doña Ana, and Luna Counties had a higher percentage of people reporting as more ethnic or racial compared with the New Mexico state average (62.3 percent). The lowest percentage of the population reporting as a racial or ethnic minority was in Catron County (18.5 percent). Minority groups with notable populations in the socioeconomic study area are those of Hispanic or Latino descent (over 50 percent of the population in Doña Ana, Luna, Hidalgo, and Grant Counties), and Native Americans (11.3 percent in Socorro County). Note that individuals who identify as Hispanic/Latino ethnicity may identify as white or one or more racial minority groups. Total minority population all of those who identify in a category other than white, of non-Hispanic origin (i.e. those who identify as Hispanic/Latino ethnicity or one or more racial minorities).

2.3 INCOME DISTRIBUTION

Table 2.3 displays income distribution trends in the socioeconomic study area. As of 2018, all counties in the socioeconomic study area had a lower per capita income than the state of New Mexico average. However, all counties have seen an increase in their per capita income since 2000, with the largest change in Hidalgo County. Average earnings per job increased in seven of the eight counties (Catron, Doña Ana, Grant, Hidalgo, Luna, Otero, and Socorro) between 2000 and 2018, while Sierra County observed a decrease. Grant and Hidalgo Counties have the highest per capita income out of all counties examined, while Luna has the lowest. Average earnings per job are highest in Otero and Doña Ana Counties, while Catron County remains the lowest.

2.4 NONLABOR INCOME

Table 2.4 shows the distribution of total personal income and nonlabor income. Nonlabor income is defined as follows:

- Income from dividends, interest, and rent (collectively often referred to as money earned from investments)
- Income from governments to individuals based on age, such as Medicare and Social Security
- Income due to financial hardship, such as Medicaid, food stamps, Supplemental Security Income, and unemployment insurance
- Income from other targeted government programs, such as disability, veterans' benefits, worker compensation, and government-provided education and training subsidies
- Income from other payments from individuals, groups, or nonprofits

Nonlabor income can represent a significant proportion of total personal income, particularly in rural areas and small cities. Many communities' reliance on nonlabor income has been increased as populations have aged, large numbers of military service members have transitioned to civilian life, and some economic sectors have contracted. Nonlabor income represents a substantial income growth in the West, constituting 34 percent of total personal income in 2011 (Lawson et al. 2014).

Table 2.2
Study Area Populations by Race/Ethnicity 2018

Geographic Area	Total Population	Total Minority Population*	Hispanic or Latino of Any Race	Race						
				White Alone	Black or African American Alone	American Indian Alone	Asian Alone	Native Hawaiian and Other Pacific Islander Alone	Some Other Race	Two or More Races
Catron County	3,539	654	635	3,504	0	2	6	0	16	11
		18.5%	17.9%	99.0%	0.0%	0.1%	0.2%	0.0%	0.5%	0.3%
Doña Ana County	215,338	156,115	146,485	189,377	4,087	2,441	2,276	61	13,246	3,850
		72.5%	68.0%	87.9%	1.9%	1.1%	1.1%	0.0%	6.2%	1.8%
Grant County	28,061	15,866	14,127	26,268	197	610	79	6	342	559
		54.0%	50.3%	93.6%	0.7%	2.2%	0.3%	0.0%	1.2%	2.0%
Hidalgo County	4,371	2,589	2,535	4,197	27	28	0	0	59	60
		59.2%	58.0%	96.0%	0.6%	0.6%	0.0%	0.0%	1.3%	1.4%
Luna County	24,264	16,963	16,164	22,208	336	250	168	9	877	416
		69.9%	66.6%	91.5%	1.4%	1.0%	0.7%	0.0%	3.6%	1.7%
Otero County	65,745	33,358	24,999	51,539	2,358	4,385	941	152	4,121	2,249
		50.7%	38.0%	78.4%	3.6%	6.7%	1.4%	0.2%	6.3%	3.4%
Sierra County	11,135	3,889	3,369	10,005	65	376	70	0	310	309
		34.9%	30.3%	89.9%	0.6%	3.4%	0.6%	0.0%	2.8%	2.8%
Socorro County	17,000	11,105	8,445	13,312	63	1,915	507	0	527	676
		65.3%	49.7%	78.3%	0.4%	11.3%	3.0%	0.0%	3.1%	4.0%
New Mexico	2,092,434	1,304,126	1,015,751	1,558,886	43,006	199,896	31,513	1,514	190,111	67,508
		62.3%	48.5%	74.5%	2.1%	9.6%	1.5%	0.1%	9.1%	3.2%

Source: Census Bureau 2010, 2018, as reported in Headwaters Economics 2020

Note: Individuals who identify as Hispanic/Latino ethnicity may identify as white or one or more racial minority groups

* Total minority population determined based on total population minus those identifying as white of non-Hispanic descent

Table 2.3
Income Distribution Trends 2000–2018 (\$2019)

Geographic Area	Per Capita Income (2000)	Per Capita Income (2018)	Average Earnings Per Job (2000)	Average Earnings Per Job (2018)
Catron County	\$24,247	\$32,586	\$24,411	\$24,482
Doña Ana County	\$27,567	\$37,228	\$40,794	\$46,416
Grant County	\$30,205	\$41,765	\$40,532	\$44,571
Hidalgo County	\$25,545	\$42,303	\$37,573	\$47,978
Luna County	\$23,044	\$31,701	\$36,796	\$44,528
Otero County	\$27,085	\$35,260	\$41,149	\$49,490
Sierra County	\$27,855	\$39,686	\$37,172	\$33,406
Socorro County	\$24,430	\$35,324	\$37,412	\$41,099
New Mexico	\$34,507	\$42,358	\$46,522	\$50,421

Source: BEA 2000 and 2019, as reported in Headwaters Economics 2020

Table 2.4
Labor Earnings and Nonlabor Income 2018

	Catron County	Doña Ana County	Grant County	Hidalgo County	Luna County	Otero County	Sierra County	Socorro County	New Mexico
Total Personal Income	116,594	8,097,914	1,142,102	179,365	759,651	2,354,675	435,276	591,140	88,758,245
	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Nonlabor Income	80,330	3,630,192	642,095	89,551	426,210	1,126,559	310,500	313,041	39,354,885
	68.9%	44.8%	56.2%	49.9%	56.1%	47.8%	71.3%	53.0%	44.3%
Dividends, Interest, Rent	33,893	1,442,094	236,615	31,001	126,472	494,684	103,889	110,437	18,299,999
	29.1%	17.8%	20.7%	17.3%	16.6%	21.0%	23.9%	18.7%	20.6%
Age-Related Transfer Payments	33,578	1,030,024	210,785	27,556	154,763	337,967	113,171	86,491	10,750,043
	28.8%	12.7%	18.5%	15.4%	20.4%	14.4%	26.0%	14.6%	12.1%
Hardship-Related Payments	7,591	873,972	155,905	26,428	121,125	185,447	76,499	95,221	7,697,840
	6.5%	10.8%	13.7%	14.7%	15.9%	7.9%	17.6%	16.1%	8.7%
Other Transfer Payments	5,268	284,102	38,791	4,566	23,850	108,461	16,942	20,892	2,607,002
	4.5%	3.5%	3.4%	2.5%	3.1%	4.6%	3.9%	3.5%	2.9%
Labor Earnings	36,263	4,467,722	500,007	89,814	46,298	1,228,116	124,776	278,099	49,403,360
	31.1%	55.2%	43.8%	50.1%	16.1%	52.2%	28.7%	47.0%	55.7%

Source: BEA 2019, as reported in Headwaters Economics 2020

In 2018, nonlabor income represented a higher portion of total income for all counties in the socioeconomic study area, as compared with the New Mexico state average. Counties with smaller populations saw nonlabor income represent a higher portion of total income in 2018. When compared with the state of New Mexico, all study area counties had a higher percentage of nonlabor income. In Catron, Grant, Luna, Sierra, and Socorro Counties, nonlabor income made up at least 50 percent of total

income. Catron and Sierra Counties contain the highest percentage of transfer payments related to age and dividends; this indicates these counties' reliance on nonlabor income is likely associated with retired and elderly individuals.

In contrast, Doña Ana, Hidalgo, and Otero Counties have a higher percentage of income from labor, as opposed to nonlabor. This likely is attributable to their relatively younger population and the greater number of employment opportunities that a more diversified economy tends to support.

2.5 EMPLOYMENT AND INCOME BY INDUSTRY

Major industries vary across the socioeconomic study area, as shown in **Table 2.5**. Compared with the state average, farm employment represents a notably higher percentage of total employment in Catron, Hidalgo, and Socorro Counties (22.10 percent, 8.71 percent, and 10.43 percent, respectively, as compared with 2.57 percent for the state of New Mexico). Other notable industries with ties to BLM management include mining (Grant County, at 10.20 percent, is above the New Mexico state average), and forestry, fishing, and related activities (above the New Mexico state average in Catron, Doña Ana, Grant, Luna, and Otero Counties). Information, finance, management, and service-related jobs in the socioeconomic study area counties represent a smaller percentage of total employment, compared with the state of New Mexico as a whole. The industry that has high percentages of employment in all counties remains government (17.87 to 37.28 percent of employment). Key industries by county are discussed below.

2.5.1 Catron County

Farming is a key industry in Catron County; over 22 percent of employment is in the sector, as compared with the New Mexico state average of less than 3 percent. Other key sectors in the county include forestry, fishing, and agricultural support (approximately 6 percent, as compared with less than 1 percent for the state of New Mexico as a whole). Retail trade in the county represents a smaller proportion of total employment, as compared with the state as a whole (approximately 6 percent, as compared with 10 percent for the state).

2.5.2 Doña Ana County

Doña Ana County has the highest population of all counties in the socioeconomic study area, and contains the largest city in the area, Las Cruces. Industries in this county are reflective of a more developed area; they also are more similar to state averages, as compared with other counties in the socioeconomic study area. Top sectors for employment include government (20 percent), health care and social assistance (16 percent), and accommodation and food services (8 percent). Agriculture remains an important local industry, as the county supports operations in the region (1.4 percent forestry, fishing, and agricultural services as compared with 0.55 percent at the state level).

2.5.3 Grant County

Over 50 percent of land in Grant County is publicly owned (primarily US Forest Service and BLM-administered lands), and the area is characterized by a rural setting with low population density. Key employment sectors in the county include government (25 percent of total employment) and mining (10 percent). Mining employment in the county is predominantly associated with metal ore mining. Grant County supports silver, copper, lead, gold, and zinc mines.

Table 2.5
Employment by Industry (2018)

	Catron County	Doña Ana County	Grant County	Hidalgo County	Luna County	Otero County	Sierra County	Socorro County	New Mexico
Total Employment	1,656	102,594	13,082	2,228	9,566	28,595	5,036	7,883	1,115,574
Farm	366	3,338	401	194	328	528	339	822	28,687
	22.10%	3.25%	3.07%	8.71%	3.43%	1.85%	6.73%	10.43%	2.57%
Forestry, fishing, & agriculture services	~98	1,443	~98	N/A	474	215	N/A	N/A	6,157
	5.92%	1.41%	0.75%	N/A	4.96%	0.75%	N/A	N/A	0.55%
Mining	~29	~808	~1,334	24	25	204	~70	N/A	34,490
	1.75%	0.79%	10.20%	1.08%	0.26%	0.71%	1.39%	N/A	3.09%
Construction	66	5,886	628	N/A	507	1,622	304	152	64,328
	3.99%	5.74%	4.80%	N/A	5.30%	5.67%	6.04%	1.93%	5.77%
Manufacturing	55	2,869	215	N/A	920	214	141	184	33,596
	3.32%	2.80%	1.64%	N/A	9.62%	0.75%	2.80%	2.33%	3.01%
Utilities	~11	421	65	~12	68	124	28	N/A	4,576
	0.66%	0.41%	0.50%	0.54%	0.71%	0.43%	0.56%	N/A	0.41%
Wholesale trade	~23	~1,455	118	~17	122	192	20	N/A	24,563
	1.39%	1.42%	0.90%	0.76%	1.28%	0.67%	0.40%	N/A	2.20%
Retail trade	~99	9,257	1,427	296	1,132	2,904	603	596	111,663
	5.98%	9.02%	10.91%	13.29%	11.83%	10.16%	11.97%	7.56%	10.01%
Transportation and warehousing	34	3,385	176	68	366	641	83	126	32,916
	2.05%	3.30%	1.35%	3.05%	3.83%	2.24%	1.65%	1.60%	2.95%
Information	N/A	997	117	18	~30	287	29	25	15,297
	N/A	0.97%	0.89%	0.81%	0.31%	1.00%	0.58%	0.32%	1.37%
Finance and insurance	~36	3,059	273	N/A	154	632	106	117	36,018
	2.17%	2.98%	2.09%	N/A	1.61%	2.21%	2.10%	1.48%	3.23%
Real estate and rental leasing	~71	4,048	377	9	243	758	185	158	41,842
	4.29%	3.95%	2.88%	0.40%	2.54%	2.65%	3.67%	2.00%	3.75%
Professional and technical services	~70	5,701	408	~81	177	957	131	484	81,618
	4.23%	5.56%	3.12%	3.64%	1.85%	3.35%	2.60%	6.14%	7.32%
Management of companies	0	84	185	0	~10	50	25	N/A	6,488
	N/A	0.08%	1.41%	N/A	0.10%	0.17%	0.50%	N/A	0.58%
Administrative and waste services	N/A	6,539	336	~18	~162	1,620	95	N/A	57,515
	N/A	6.37%	2.57%	0.81%	1.69%	5.67%	1.89%	N/A	5.16%
Educational services	~14	1,579	176	~13	N/A	306	N/A	~43	17,004
	0.85%	1.54%	1.35%	0.58%	N/A	1.07%	N/A	0.55%	1.52%
Health care and social assistance	~90	16,579	1,207	~194	N/A	3,152	N/A	~855	135,667
	5.43%	16.16%	9.23%	8.71%	N/A	11.02%	N/A	10.85%	12.16%
Arts, entertainment, and recreation	35	2,064	~247	N/A	104	355	123	89	26,008
	2.11%	2.01%	1.89%	N/A	1.09%	1.24%	2.44%	1.13%	2.33%
Accommodation and food services	51	8,171	~1,130	N/A	841	1,786	582	674	95,173
	3.08%	7.96%	8.64%	N/A	8.79%	6.25%	11.56%	8.55%	8.53%
Other services, except public administration	~90	4,994	725	~96	~469	1,387	278	288	56,309
	5.43%	4.87%	5.54%	4.31%	4.90%	4.85%	5.52%	3.65%	5.05%

	Catron County	Doña Ana County	Grant County	Hidalgo County	Luna County	Otero County	Sierra County	Socorro County	New Mexico
Government	296	20,396	3,261	637	2,056	10,661	921	2,657	205,659
	17.87%	19.88%	24.93%	28.59%	21.49%	37.28%	18.29%	33.71%	18.44%

Source: BEA, as reported in Headwaters Economics 2020

Note: Numbers with ~ are estimates provided by the Economic Profile System (Headwaters Economics 2020).

All employment data are reported by place of work.

2.5.4 Hidalgo County

Hidalgo County has the smallest workforce of the socioeconomic study area counties. Key industries include government (29 percent), retail trade (13 percent of total employment), farming (9 percent), and health care and social assistance (9 percent).

2.5.5 Luna County

Luna is a sparsely populated county, a portion of which includes the international border with Mexico. Key industries in terms of employment level include government (21 percent of total employment), manufacturing (10 percent), and retail trade (12 percent).

2.5.6 Otero County

Otero County contains the Alamogordo micropolitan area. Key industries in Otero County include government (37 percent of total employment), health care and social assistance (11 percent), and retail trade (10 percent).

2.5.7 Sierra County

Sierra County has the highest percentage of employment by accommodation and food services (12 percent), suggesting tourism is a large part of its economy. Other important sectors include retail trade (12 percent) and government (18 percent). Farming is also a locally important economic sector, representing approximately 7 percent of employment, as compared with less than 3 percent for the state of New Mexico.

2.5.8 Socorro County

Farming is a key industry in Socorro County, representing over 10 percent of total employment, compared with less than 3 percent for the state of New Mexico. Other important industries are government (34 percent), health care and social assistance (11 percent), and accommodation and food services (9 percent). Retail trade (8 percent of employment) is an important sector, but it represents a lower level of employment than the state of New Mexico average for this sector.

Table 2.6 shows the socioeconomic study area earnings by industry in 2018. Reflective of the population size and labor workforce, Doña Ana has the highest total labor earnings (\$4,762,040) while Catron County has the lowest (\$40,543). Income by industry within a county generally follows the percentage of the employment within that industry. There can be differences in the percentage of earnings by industry and percentage of employment by industry based on the average wage in a particular industry, as discussed in greater detail for **Table 2.7**, below.

Table 2.6
Income by Industry (\$1,000s of 2018 Dollars and Percentage of Total Labor Earnings)

Industry	Catron County	Doña Ana County	Grant County	Hidalgo County	Luna County	Otero County	Sierra County	Socorro County	New Mexico
Labor earnings ¹	\$40,543	\$4,762,040	\$583,076	\$106,894	\$425,958	\$1,415,176	\$168,231	\$323,983	\$56,248,534
Farm	\$2,306	\$130,154	\$2,129	\$5,107	\$14,221	\$2,252	\$8,818	\$25,971	\$686,848
	5.69%	2.73%	0.37%	4.78%	3.34%	0.16%	5.24%	8.02%	1.22%
Forestry, fishing, & agriculture services	~\$919	\$49,617	~\$1,835	N/A	\$17,050	\$2,136	N/A	N/A	\$171,250
	2.27%	1.04%	0.31%	N/A	4.00%	0.15%	N/A	N/A	0.30%
Mining	~\$1,294	~\$60,372	~\$110,690	\$693	\$439	\$6,428	~\$3,818	N/A	\$2,884,218
	3.19%	1.27%	18.98%	0.65%	0.10%	0.45%	2.27%	N/A	5.13%
Construction	\$2,110	\$312,148	\$26,974	N/A	\$26,651	\$73,751	\$12,974	\$2,855	\$3,643,094
	5.20%	6.55%	4.63%	N/A	6.26%	5.21%	7.71%	0.88%	6.48%
Manufacturing	\$1,300	\$159,750	\$4,008	N/A	\$40,269	\$3,428	\$4,143	\$8,310	\$1,807,496
	3.21%	3.35%	0.69%	n/A	9.45%	0.24%	2.46%	2.56%	3.21%
Utilities	~\$685	\$47,116	\$5,615	~1,105	\$7,019	\$10,314	\$2,361	N/A	\$507,632
	1.69%	0.99%	0.96%	1.03%	1.65%	0.73%	1.40%	N/A	0.90%
Wholesale trade	~\$646	~\$80,907	\$5,810	~509	\$6,184	\$8,473	\$352	N/A	\$1,509,655
	1.59%	1.70%	1.00%	0.48%	1.45%	0.60%	0.21%	N/A	2.68%
Retail trade	~\$2,587	\$276,194	\$37,217	\$7,390	\$29,299	\$72,245	\$14,069	\$13,609	\$3,677,913
	5.72%	5.80%	6.38%	6.91%	6.88%	5.11%	8.36%	4.20%	6.54%
Transportation and warehousing	\$361	\$141,463	\$4,463	\$5,242	\$19,205	\$25,929	\$2,354	\$5,725	\$1,700,611
	0.89%	2.97%	0.77%	4.90%	4.51%	1.83%	1.40%	1.77%	3.02%
Information	N/A	\$35,485	\$7,192	\$951	~\$781	\$14,293	\$749	\$1,134	\$915,063
	N/A	0.75%	1.23%	0.89%	0.18%	1.01%	0.45%	0.35%	1.63%
Finance and insurance	~\$282	\$128,059	\$9,902	N/A	\$6,182	\$22,688	\$2,950	\$4,092	\$1,975,908
	0.70%	2.69%	1.70%	N/A	1.45%	1.60%	1.75%	1.26%	3.51%
Real estate and rental leasing	~\$278	\$85,475	\$5,991	\$82	\$3,234	\$9,534	\$1,218	\$1,427	\$844,408
	0.69%	1.79%	1.03%	0.08%	0.76%	0.67%	0.72%	0.44%	1.50%
Professional and technical services	~\$1,938	\$304,618	\$10,899	~\$3,866	\$6,436	\$49,391	\$4,251	\$29,936	\$6,256,589
	4.78%	6.40%	1.87%	3.62%	1.51%	3.49%	2.53%	9.24%	11.12%
Management of companies	\$0	\$4,923	\$14,643	\$0	~\$1,311	\$1,569	\$193	N/A	\$492,901
	0%	0.10%	2.51%	0%	0.31%	0.11%	0.11%	N/A	0.88%
Administrative and waste services	N/A	\$236,223	\$8,114	~\$995	~\$5,167	\$64,971	\$1,769	N/A	\$2,215,889
	N/A	4.96%	1.39%	0.93%	1.21%	4.59%	1.05%	N/A	3.94%
Educational services	~113	\$39,305	\$2,620	~\$322	N/A	\$14,518	N/A	~\$459	\$483,003
	0.28%	0.83%	0.45%	0.30%	N/A	1.03%	N/A	0.14%	0.86%
Health care and social assistance	~\$1,957	\$761,990	\$48,946	~\$6,364	N/A	\$170,354	N/A	~\$34,571	\$6,881,086
	4.83%	16.00%	8.39%	5.95%	N/A	12.04%	N/A	10.67%	12.23%
Arts, entertainment, and recreation	\$547	\$104,490	~\$2,148	N/A	\$1,082	\$2,372	\$1,265	\$36	\$512,495
	1.35%	2.19%	0.37%	N/A	0.25%	0.17%	0.75%	0.01%	0.91%
Accommodation and food services	\$530	\$302,040	~\$22,599	N/A	\$13,559	\$34,222	\$9,490	\$15,683	\$2,439,228
	1.31%	6.34%	3.88%	N/A	3.18%	2.42%	5.64%	4.84%	4.34%
Other services, except public administration	~\$1,553	\$149,580	\$17,658	~\$2,500	~\$16,697	\$39,845	\$5,519	\$8,298	\$1,985,208
	3.83%	3.14%	3.03%	2.34%	3.92%	2.82%	3.28%	2.56%	3.53%

Industry	Catron County	Doña Ana County	Grant County	Hidalgo County	Luna County	Otero County	Sierra County	Socorro County	New Mexico
Government	\$19,081	\$1,413,991	\$190,008	\$56,978	\$155,994	\$786,464	\$56,299	\$152,460	\$14,658,040
	47.06%	29.69%	32.59%	53.30%	36.62%	55.57%	33.47%	47.06%	26.06%

Source: BEA, as reported in Headwaters Economics 2020

Note: Numbers with ~ are estimates provided by the Economic Profile System (Headwaters Economics 2020).

¹Earnings is the sum of wage and salary disbursements, supplements to wages and salaries, and proprietors' income.

2.6 WAGES BY INDUSTRY

Table 2.7 shows the socioeconomic study area wages by industry in 2018. The most notable industries for the highest industry wages include government, professional businesses and services, and construction, while the lowest remains leisure and hospitality services. Average annual wages were lower than the state of New Mexico average for all counties in the socioeconomic study area. The lowest wages were in Catron County, while the highest were in Grant County.

Table 2.7
Average Wages by Industry (2018 data in \$2019)

	Catron County	Doña Ana County	Grant County	Hidalgo County	Luna County	Otero County	Sierra County	Socorro County	New Mexico
Average Annual Wages	\$31,102	\$39,592	\$42,541	\$40,153	\$36,332	\$39,181	\$32,739	\$38,801	\$47,059
Total Private	\$22,959	\$35,098	\$41,862	\$26,241	\$29,567	\$36,861	\$28,751	\$33,643	\$45,694
Natural Resources and Mining	\$34,888	\$26,499	N/A	\$20,003	\$24,511	\$33,851	\$29,664	\$36,122	\$68,424
Agriculture, forestry, fishing & hunting	N/A	\$26,096	\$33,044	N/A	\$24,283	\$31,075	N/A	N/A	\$31,995
Mining (incl. fossil fuels)	N/A	\$48,085	N/A	N/A	\$37,795	\$38,239	N/A	N/A	\$83,887
Construction	\$30,253	\$40,657	\$33,614	N/A	\$53,994	\$39,030	\$43,081	\$27,352	\$52,098
Manufacturing	\$29,108	\$48,931	N/A	N/A	\$33,105	\$25,526	\$32,908	\$43,170	\$55,761
Trade, Transportation, and Utilities	\$20,673	\$33,385	\$29,436	\$32,469	\$29,890	\$30,953	\$26,762	\$29,432	\$39,272
Information	N/A	\$33,406	\$57,245	\$37,474	N/A	\$44,249	\$25,234	\$83,440	\$57,613
Financial Activities	N/A	\$45,344	\$35,317	N/A	\$35,497	\$37,672	\$26,025	\$29,007	\$57,770
Professional and business Services	\$59,815	\$45,463	\$43,905	\$32,816	\$37,710	\$48,679	\$42,486	\$66,139	\$64,205
Education and Health Services	\$17,963	\$37,829	\$35,596	\$25,640	\$33,103	\$46,740	\$34,759	\$34,139	\$42,852
Leisure and Hospitality	\$22,416	\$17,284	\$13,432	\$14,041	\$12,515	\$16,006	\$14,812	\$15,803	\$19,580

	Catron County	Doña Ana County	Grant County	Hidalgo County	Luna County	Otero County	Sierra County	Socorro County	New Mexico
Other Services	N/A	\$28,310	\$22,894	N/A	N/A	\$33,621	\$16,022	\$19,411	\$35,423
Government	\$41,227	\$53,893	\$44,047	\$63,137	\$55,743	\$43,459	\$44,184	\$46,247	\$52,087

Source: Census Bureau 2018, as reported in Headwaters Economics 2020

Note: N/A represents data not available

Chapter 3. Current Land Uses

3.1 PARCEL OVERVIEW

Due to the large number of individual parcels selected for exchange, to facilitate analysis the parcels were grouped into 19 areas of interest (AOIs). Parcels were first grouped by county and, in cases where geographic sub-areas within counties could be discerned, by sub-county areas. This resulted in the following AOIs:

3.1.1 AOIs for BLM exchange lands²

- Federal land (FL) – Catron County (21 parcels)
- FL – Doña Ana County (26 parcels)
- FL – Doña Ana County–Border (3 parcels)
- FL – Hidalgo County (1 parcel)
- FL – Otero County (10 parcels)
- FL – East Luna County (19 parcels)
- FL – West Luna County (30 parcels)
- FL – East Socorro County (10 parcels)
- FL – West Socorro County (45 parcels)
- FL – Grant/Luna County Border (5 parcels)
- FL – Grant County Panhandle (38 parcels)
- FL – Grant County Outlier (2 parcels)
- FL – Upper Sierra County (7 parcels)
- FL – Middle Sierra County (9 parcels)
- FL – Lower Sierra County (47 parcels)

3.1.2 AOIs for SLO exchange lands³

- STL – Hidalgo County (2 parcels)
- STL – Luna County (4 parcels)
- STL – North Doña Ana County (75 parcels)
- STL – South Doña Ana County (55 parcels)

Each AOI includes several parcels of BLM- or SLO-administered lands that have been identified for potential exchange. Parcels for exchange within the same AOI are likely to contain similar land uses, allowing for a consolidated analysis; information for current land use is, therefore, presented in reference to these AOIs. **Table 3.1**, below, presents the total acres proposed for exchange by county, BLM field

² The term “BLM exchange lands” refers to parcels of federal lands identified by the State of New Mexico for transfer from federal to state ownership as of March 2021.

³ The term “SLO exchange lands” refers to parcels of state lands identified by the BLM for transfer from the state to federal ownership as of March 2021.

Table 3.1
Lands Proposed for Exchange by County and Area of Interest

County	Area of Interest	Federal Acres Identified	State Acres Identified	BLM Administrative Unit
Catron	FL – Catron	18,706	—	Socorro FO
Doña Ana	FL – Doña Ana	15,937	—	Las Cruces District Office (DO)
	FL – Doña Ana Border	15,897	—	Las Cruces DO
	STL – North Doña Ana	—	54,487	Las Cruces DO
	STL – South Doña Ana	—	27,412	Las Cruces DO
Grant	FL – Grant/Luna Border	2,204	—	Las Cruces DO
	FL – Grant Outlier	240	—	Las Cruces DO
	FL – Grant Panhandle	31,594	—	Las Cruces DO
Hidalgo	FL – Hidalgo	240	—	Las Cruces DO
	STL – Hidalgo	—	1,280	Las Cruces DO
Luna	FL – East Luna	8,511	—	Las Cruces DO
	FL – West Luna	12,503	—	Las Cruces DO
	STL – Luna	—	1,975	Las Cruces DO
Otero	FL – Otero	3,686	—	Las Cruces DO
Sierra	FL – Upper Sierra	16,945	—	Las Cruces DO
	FL – Middle Sierra	1,721	—	Las Cruces DO
	FL – Lower Sierra	27,663	—	Las Cruces DO
Socorro	FL – East Socorro	2,037	—	Socorro FO
	FL – West Socorro	18,029	—	Socorro FO

Sources: BLM GIS 2021a; SLO 2021a

Notes: Acres are rounded to nearest 1.

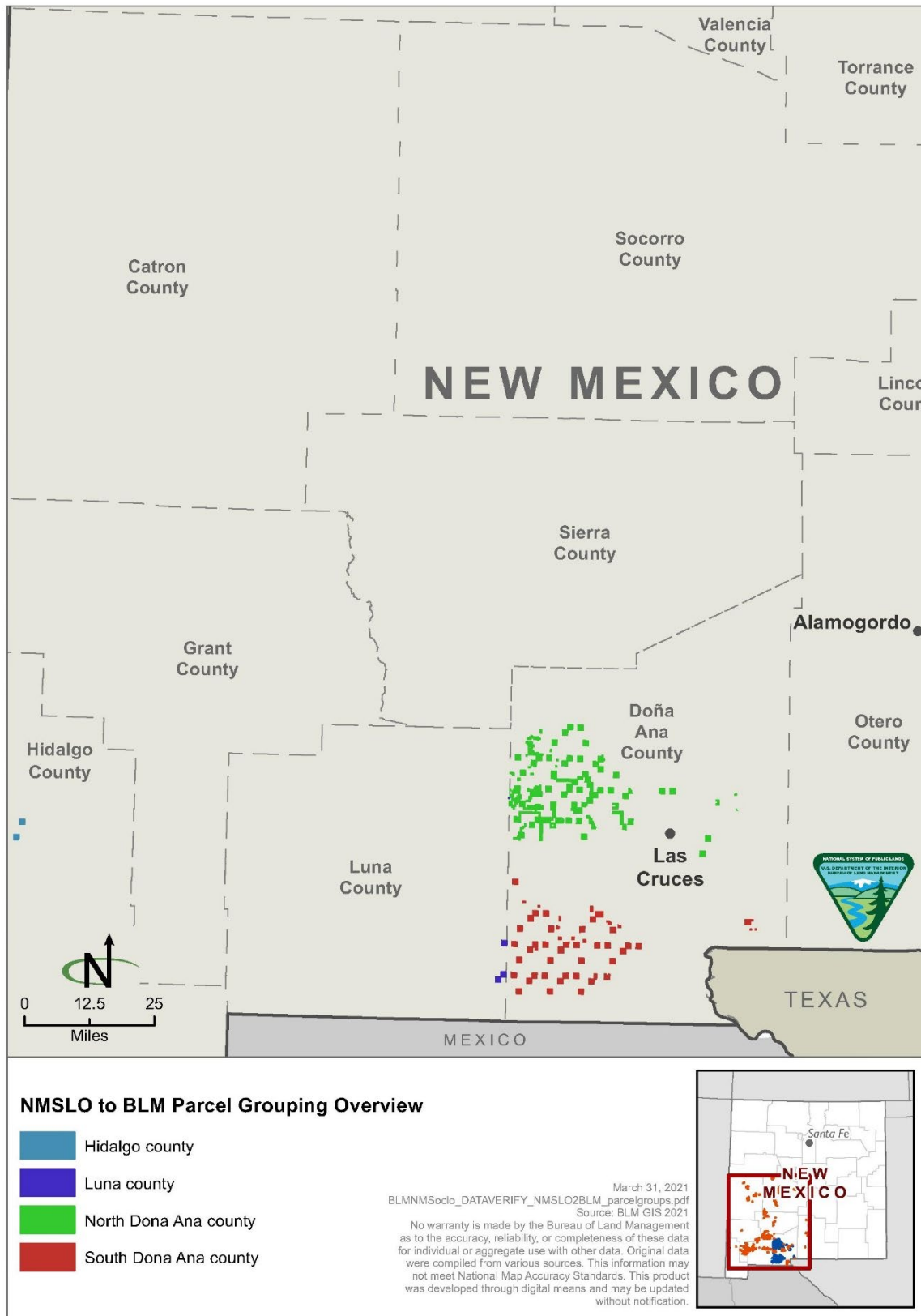
office (FO), and AOI. A complete inventory of all parcels being considered for exchange, with accompanying legal descriptions, is contained in **Appendix A**. Detailed maps of the parcels, with surrounding surface administration and current uses, are provided in **Appendix B**. Identified parcels and acres in the AOIs below include all those selected for potential exchange. Some parcels may be excluded from the final exchange due to resource issues identified in analysis, site-specific appraisal or other factors.

Exchange parcels were divided into 15 AOIs containing BLM-administered parcels selected by the SLO, and 4 AOIs with SLO parcels identified for exchange with the BLM (see **Figure 3.1** and **Figure 3.2**).

Figure 3.1. BLM-Administered Parcels Selected for Exchange



Figure 3.2. SLO-Administered Parcels Selected for Exchange



3.2 LAND USE OVERVIEW

A description of access, current land uses, and the geographic setting is provided based on available data for each AOI. Information was obtained from the following sources:

- Geographic information system (GIS) databases maintained at the BLM state office, as well as district and field offices
- GIS databases maintained by the SLO
- Coordination with resource specialists at the BLM state office and SLO
- Land management designations based on current BLM resource management plans (RMPs)
- Land use and roadway access information obtained from aerial site photography and satellite imagery
- Data obtained from other state and federal agencies, including the US Fish and Wildlife Service (USFWS); the US Department of Energy, National Renewable Energy Laboratory; the US Geological Survey, Gap Analysis Project; the New Mexico Energy, Minerals and Natural Resources Department, Mining and Minerals Division; and the New Mexico Department of Game and Fish.

For each AOI, a description of current land uses on the BLM-administered or SLO parcels is provided by type of use. The primary land users and types of use are defined below.

3.2.1 Access

General information on access was ascertained through the combination of GIS-based identification of roadways providing access to the parcels (BLM GIS 2021 b) and desktop review of aerial site photography and satellite imagery.

3.2.2 Minerals

For the purposes of this analysis, mineral development includes fluid leasable minerals (for example, oil, gas, and geothermal), solid leasable minerals (for example, coal, potash, and salt), locatable minerals (for example, gold, copper, and lithium), and mineral (salable) materials (for example, sand and gravel). BLM-administered lands are available for mineral development in accordance with the land use designations in current RMPs. Areas may be identified as open to fluid mineral leasing with standard lease terms and conditions, open with stipulations applied, or closed to leasing. Likewise, areas may be open or closed to mineral materials leasing. Areas with coal are defined as suitable or unsuitable for leasing, based on resource availability and other factors.

This report examines the current development and potential for development within and adjacent to BLM and SLO exchange parcels (selected and offered lands). Databases used to identify current locations of mineral leases in the AOIs and development include the New Mexico Energy, Minerals and Natural Resources Department, Mining and Minerals Division data (MMD 2021); University of New Mexico GIS (UNM 2021); and BLM GIS (BLM GIS 2021 a), as well as a mineral assessment memorandum prepared by the SLO for this exchange (SLO 2021 d).

There are no areas of high fluid mineral development potential in the immediate region of the lands identified for exchange, although there are active leases within 5 miles of two exchange parcels in Otero County. Mineral materials are present on most of the selected land. There is also one plan of operations for locatable minerals, and there are active mining claims. Mineral reports are under preparation that will

further identify the active mineral development, the potential for mineral development in the foreseeable future, and any concerns with mineral resources due to the land exchange. The effects of such mineral development will be evaluated in the subsequent NEPA analysis.

Based on current levels of use, each AOI has been grouped into one of two categories, as follows:

- Unknown current use or use potential—No active mining claims, mineral leases, or mineral material authorizations on BLM or SLO exchange parcels or within 5 miles of parcels in the AOI. Based on available data, there also is no meaningful potential for mineral development on any of the selected parcels within the AOI.
- Known use—There are active mineral development; active mining claims, mineral leases, or mineral materials authorizations; or meaningful potential for mineral development on one or more of the selected parcels within the AOI.

3.2.3 ROW Development

Rights-of-way (ROWs) are granted to allow use or access to BLM or state administered lands for a particular project and may be granted for transmission lines, pipelines, renewable energy development, communication sites, roads, trails, fiber optic lines, canals, flumes, pipelines, reservoirs and other activities. Generally, a ROW is granted for a term appropriate for the life of the project. ROW data were provided by the BLM (BLM GIS 202 I a; BLM 202 I c) and by the SLO (SLO 202 I a).

ROW development in the AOIs is defined as follows:

- Not a current land use—There are no existing authorizations on parcels selected for exchange; restrictions on ROWs may apply.
- Known use—There are existing or pending ROW authorizations on parcels selected for exchange.

3.2.4 Livestock Grazing

Livestock grazing is a historical land use throughout New Mexico and is one of the dominant existing uses on the parcels selected for exchange. Use of federal lands for livestock grazing is allowed, following the Taylor Grazing Act of 1934, as amended. For areas within grazing districts established at the time of the act, grazing permits are issued under Section 3 of the act. For areas outside of established grazing districts, leases are issued under Section 15 of the act. The specific terms and conditions of permits and leases are based on available forage and other considerations. Forage use is described in terms of animal unit months (AUMs), which is the level of forage needed to sustain one cow and calf for 1 month.

Allotment and AUM data for livestock grazing were provided by the BLM New Mexico State Office (BLM 202 I a) and by the SLO (SLO 202 I a). Detailed maps of the grazing allotments associated with parcels considered for exchange are provided in **Appendix B**.

In each AOI, use is classified into the following categories:

- Not a current land use—There is no current grazing on parcels identified for exchange.
- Low use—There are fewer than 400 AUMs proposed for exchange.

- Medium use—Between 400 and 1,000 AUMs are proposed for exchange.
- High use—Over 1,000 AUMs are proposed for exchange.

SLO grazing is managed under grazing leases. For consistency with BLM data for discussion by AOI, current use data are discussed by BLM allotment. A cross-reference table for SLO leases and BLM allotment names and numbers is provided in **Table 3.2**. This table indicates the primary SLO lease or leases within each BLM allotment.

Table 3.2
Cross-Reference for BLM Allotments and SLO Leases

BLM Allotment Name	BLM Allotment Number	Primary SLO Lease Number	Primary SLO Lease Names
Playa	01068	N/A	N/A
Mondel Flat	01079	N/A	N/A
Home Ranch	03002	GS20800001	Williams Family Ranches LLC
Rock Canyon	03007	G022560000	Hank A. Williams
Picacho Peak	03008	GS22680000	Robert Gallegos
Lazy E	03009	GT24280000	Butterfield Trail Ranch LLC
Lazy E	03009	GT24280000	Butterfield Trail Ranch LLC
Souse Spring	03010	GT30240000	Veronica B. Sanchez
Loco	03011	GR09930000	Paul K. Castle
Sierra Alta	03012	GS14300000	Sierra Alta Ranch LLC
Corralitos Ranch	03013	GT18940000	Glenda Joyce Foster
Corralitos Ranch	03013	GT18940000	Glenda Joyce Foster
Alamo Basin	03015	G020240001, GM26840001	Alamo Basin Ranch LLC
POL East	03016	GT30390000	Williams Family Ranches, LLC
Kilbourne Hole	03023	GT18600000	Charles E. Johns
Kilbourne Hole	03023	GR14330000	Charles E. Johns
Broad Canyon	03025	GM18790001	Alamo Basin Ranch LLC
Horse Canyon	03026	GM26840001	Alamo Basin Ranch LLC
Bignell Arroyo	03027	GT29440000	Wayne Muncrief
West Potrillo	03029	GT29210000	Williams Family Ranches LLC
Las Uvas Mountains	03031	GT29200002	GH Dairy, A California General Partnership
Saddle Mountain	03032	G017900000	Hyatt & Hyatt LLC
Saddle Mountain	03032	G019350000	Hyatt & Hyatt LLC.
Potrillo Ranch (Border)	03039	GM27160000	Mcperson Land & Cattle Co.
Potrillo Ranch (Mt. Riley)	03039	GM27160000	Mcperson Land & Cattle Co.
Altimir	03040	G016720000	Robledo Farms LLC
Altimir	03040	G017790000	Joann Cassidy
Indian Spring	03047	GM18790001	Alamo Basin Ranch LLC
Afton	03056	GS20800001	Williams Family Ranches LLC
Chaparral	15001	GM24730000	James P. Maloney
Dripping Springs	15002	N/A	N/A
Doña Ana Mountains	15007	GT30890000	Jacob C. Kerr

Source: BLM 2021a; SLO 2021a

3.2.5 Recreation

Parcels proposed for exchange may be available for different types of recreational use, including off-road vehicle travel or other uses based on management prescriptions set in relevant RMPs. Hunting is generally permitted on BLM-administered and STLs, unless otherwise specified in management direction for a parcel.

Ownership of adjacent lands may also affect levels of recreation. Federal lands completely surrounded by private lands are considered landlocked, due to a lack of access. Isolated parcels with little or no access are rarely used for recreation.

Information on current recreational use was requested from all BLM field offices administering lands proposed for exchange. Recreational users of STLs must have a recreational access permit to access these lands. This permit is obtained from the SLO. Information on hunting was obtained from the New Mexico Department of Game and Fish (2021).

Recreation level is identified by the following criteria:

- Not a current land use—There is limited access due to the surrounding landownership; terrain or vegetation preclude recreational use.
- Unknown use potential—Access is possible, and dispersed recreation, such as hunting, may occur; no specific data are available for the level or type of recreation use.
- Known use—Recreation is known to be present in the parcels selected for exchange.

3.2.6 Forest and Woodland Products

Forest and woodland products may be harvested from BLM-administered lands. These products could include fuelwood, posts and poles, pine nuts, and other products available in pinyon and juniper woodlands and other dominant vegetation types in the area. Harvesting these products for personal or commercial use may be permitted, although harvesting may be restricted at the RMP level.

Information was obtained from the BLM's fuelwood viewer database (BLM 2021b), which indicated that no designated fuelwood harvesting areas overlap with any of the parcels identified for exchange. Although limited fuelwood harvest may occur throughout the socioeconomic study area, depending on dominant vegetation types and access restrictions from surrounding private lands, it is not a notable current land use occurring within any of the AOIs.

Fuelwood and other forest products may be removed from STL with an approved permit/authorization from the SLO. Forest product removal on STL most often occurs in close coordination with approved restoration and fuels reduction projects. A fee is charged for all wood products of value removed from STL to support the SLO mission of generating revenue for trust beneficiaries. The volume, diameter, and species of wood product removed are in strict accordance with site-specific project specifications to meet resource management objectives. Designated fuelwood areas are often identified based on resource and community needs. The SLO does not have a dead and down policy for fuelwood removal.

3.2.7 Water

Water resources with the potential to be affected by the proposed land exchange are described in terms of existing well and water rights. Water rights are granted and managed by the New Mexico Office of the

State Engineer. Current water well and water rights information was reviewed based on New Mexico Office of the State Engineer water rights data. Water use categories are defined based on Office of the State Engineer categories, as indicated in **Table 3.3**, below.

Table 3.3
Water Permit and Use Categories

Permit Category	Associated Use	Notes
72-12-1	Domestic, livestock, limited commercial	Regulations follow New Mexico Statute Section 72-12-1: Underground waters declared to be public; applications for livestock watering, domestic, and temporary uses of water. Domestic use for one household and livestock use generally permit 3 acre-feet/year of use.
Non 72-12-1	Domestic or livestock	Water rights based on application for beneficial use of the waters as described in Chapter 72, Article 12 New Mexico Statute 1978. Domestic use for one household and livestock use generally permit 3 acre-feet/year of use.
Municipal	City or county municipal use	—
Irrigation	Irrigation	—
Monitoring well	Commercial/industrial	—
Exploration	Commercial/industrial	—
Mining	Industrial	—

Source: New Mexico Office of the State Engineer 2021

Wells are further defined by their current status, including permitted, expired, cancelled, adjudicated, or declaration. The majority of wells are currently in use and noted as permitted wells, with permits granted by the Office of the State Engineer. Permits automatically expire unless a well is completed within one year of the date of issuance of the permit, those not completed are noted as expired. Permits may also be in cancelled status due to noncompliance. Adjudicated wells are those wells for which water rights have been decided based on a judicial determination. Declaration status is used to declare a well or underground diversion that was constructed before the year that permits began to be required in the particular underground basin.

Levels of use are defined as follows:

- Not a current land use—No wells are identified on parcels selected for exchange.
- Known use—One or more wells are present on parcels selected for exchange.

3.2.8 Special Features

Special features, such as habitat for federally listed threatened or endangered species or places of cultural or tribal significance, may be found on AOs. Information on known features was requested from affected BLM state, district and field offices.

While parcels may contain cultural resources that have been determined to be eligible for the National Register of Historic Places (usually eligible only under criterion d), only resources that were of particular known significance or are specially managed were recommended not to be exchanged and subjected to further analysis in this document.

Traditional cultural properties (TCPs) as discussed here are synonymous with “properties of traditional religious and cultural importance,” which are defined in the National Historic Preservation Act (Section 101(d)(6)(A) and (B)) and the regulations implementing that act (cited in 36 Code of Federal Regulations [CFR] 800.2(c)(2)(ii)). Among Indigenous peoples in New Mexico, rock art localities, traditional plant gathering areas, burial grounds, and caves are just a few examples of physical locations that might be considered TCPs.

The identification of TCPs is not limited to Indigenous communities and may include properties that are of importance to other ethnic and cultural communities. At the time of this writing, no formally designated/identified TCPs have been identified within the BLM exchange parcels. However, certain federally recognized indigenous nations, such as the Hopi Tribe of Arizona, consider all archaeological sites of their ancestors to be TCPs. Tribal consultation to identify potential TCPs within the slated parcels would be conducted prior to major project planning involved in the state land exchange.

Information for federally listed wildlife species was obtained from the New Mexico Department of Game and Fish and the USFWS (USFWS 2021). It should be noted that the USFWS data are available at the county level. Species that have potential to occur in the county are included in the AOI write-ups below; however, this does not indicate that potential habitat is within the specific parcels selected for exchange. Ground truthing of parcels and site-specific information for species occurrence and habitat will be documented in the ongoing biological assessment being prepared in support of the land exchange.

The presence of important habitat or places of cultural importance do not usually have monetized economic values. The social, cultural, and nonmarket values of such places and features, such as contributions to biodiversity, cultural services, or quality of life for residents, can be highly significant.

The potential for special features is noted in each AOI description as applicable. No specific cultural resources inventory or assessment of site-specific conditions for sensitive species habitat was conducted for this report; separate cultural resources reports and biological surveys are under preparation in support of the New Mexico land exchange. Information from these resource-specific reports will be incorporated into later analyses of the land exchange.

3.2.9 Renewables

The potential for future development of wind and solar energy, based on wind and solar resource data, is also examined.

No current wind energy development projects are on parcels selected for exchange. The potential for wind energy development was examined based on average wind speed data, as mapped by the National Renewable Energy Laboratory. In many of the AOIs, the resource potential for development of wind energy was predicted to be “good” or better for one or more parcels proposed for exchange.

Additionally, the presence of existing wind turbines located within a 5-mile distance of parcels selected for exchange, based on data available through the University of New Mexico GIS database (UNM 2021), was used as an indicator of wind energy development potential. FL – Lower Sierra County was the only AOI where turbines were present within a 5-mile distance. Details are provided below under the discussion of wind energy potential for parcels within each AOI.

The potential for solar energy development was determined by examining the solar energy direct normal irradiance (DNI)⁴ for each AOI parcel grouping. AOIs were compared in terms of the number of acres with a DNI of 7.5 or greater.

Levels of renewable energy development potential are defined as follows:

- No known potential—Less than 50 percent of lands in the AOI have solar energy DNI values of 7.5 or greater, and no lands occur where wind energy development potential was predicted to be “good” or better.
- Potential for development—Solar energy DNI values of 7.5 or greater occur on more than 50 percent of lands in the AOI, and development potential for wind energy was predicted to be “good” or better.

3.3 PARCEL-LEVEL LAND USE BY AREA OF INTEREST

3.3.1 BLM-administered lands

AOI: FL – CATRON

General Overview

This AOI includes approximately 18,706 acres of BLM-administered lands proposed for exchange in Catron County; the lands are located on 21 parcels. Exchange parcels contained in this AOI are primarily composed of pinyon-juniper woodland and semidesert shrub steppe terrain. Grazing is a major existing land use that occurs in the vicinity of the AOI. The BLM Socorro FO administers all the lands proposed for exchange.

Access

Several parcels within the AOI are accessible directly off Highway 12 or Highway 36. A parcel south of Highway 60 can be accessed by dirt road, while others in the area can be reached by cross-county travel on BLM-administered or state land. The easternmost parcel can be accessed only by cross-county travel on permitted uses of state land.

Baseline Land Use Data

Minerals

Unknown use potential—No minerals are being developed on selected parcels within the AOI; there also are no areas of active use in the immediate region, including active oil or gas leases or mines, within 5 miles of parcels within the AOI.

ROW Development

Known use—There are existing or pending ROW authorizations on parcels selected for exchange (**Table 3.4**).

⁴ DNI is the amount of solar radiation received per unit area by a surface that is always held perpendicular (or normal) to the rays that come in a straight line from the direction of the sun at its current position in the sky.

Table 3.4
Existing ROW Permits in AOI: FL – Catron

ROW Permit Number	Row Permit Name	ROW Category	Acres	Expiration Date
5468	New Mexico (NM) State Highway Department	Road	5	N/A
14159	Socorro Electric Corp.	Transmission	10	N/A
20971	NM State Highway Department	Road	5	N/A
23664	Navigate Electric Coop	Transmission	1	April 9, 2025
28223	Western NM Communication Co.	Communication	7	June 10, 2026
45799	NM State Highway Department	Road	6	N/A
50588	NM State Highway Department	Road	5	N/A
51182	NM State Highway Department	Road	4	N/A
52190	Western NM Telephone Co.	Communication	13	December 31, 2041
52225	Western NM Telephone Co.	Communication	11	December 31, 2041
83768	Catron County	Road	1	N/A
83770	Catron County	Road	unknown	N/A
83826	Forest Service	Road	7	July 17, 2037
90660	Western NM Telephone Co.	Communication	8	November 3, 2044
109221	Western NM Telephone Co.	Communication	5	April 2, 2034

Source: BLM 2021c

Note: excludes ROWs with less than one acre in AOI parcels and relinquished ROWs

N/A: not applicable, no expiration date

unknown: acres are not mapped in current GIS data and require site-specific verification to determine acres specific in exchange parcels

Livestock Grazing

High use—The AOI overlaps 16 grazing allotments with permitted AUMs. An estimated total of 2,427 AUMs are contained in the lands proposed for exchange (see **Table 3.5**, below).

Table 3.5
Livestock Grazing in AOI: FL – Catron

Allotment Number	Allotment Name	Public Acres before Exchange (% of total allotment acres)	Acres on Exchange Parcels	Authorized BLM AUMs before Exchange	AUMs on Exchange Parcels
00054	Shaw Canyon	45,844 (19%)	180	6,936	5
00077	Emery	960 (100%)	960	96	96
00084	Paul Lund	1,480 (58%)	320	251	65
00127	Bat Cave	210 (100%)	380	11	11
00129	RM Chavez	262 (100%)	250	60	60

Allotment Number	Allotment Name	Public Acres before Exchange (% of total allotment acres)	Acres on Exchange Parcels	Authorized BLM AUMs before Exchange	AUMs on Exchange Parcels
00151	Montoya	740 (100%)	730	108	108
00192	W Emery	200 (100%)	210	200	36
01128	Patterson	11,198 (100%)	3,820	1,588	254
10014	Half Circle D	440 (100%)	420	72	72
10031	Arroyo Baca	448 (34%)	450	67	67
10049	Baca Springs	460 (50%)	30	67	5
10051	Emery	2,575 (14%)	2,340	379	379
10064	Evans Well	1,020 (100%)	1,030	108	108
10071	North Fork Alamocito	3,120 (100%)	200	540	30
10072	Mangas Ranch	22,462 (53%)	5,980	3,790	1,000
10111	E Horse Mountain	3,452 (28%)	1,130	308	107

Source: BLM 2021a

Acres on exchange parcels are estimates rounded to the nearest 10. AUMs on exchange parcels are estimated based on BLM allotment level carrying capacity estimates

Recreation

Unknown use potential—Dispersed recreation may occur in the AOI. Dispersed camping and hunting are permitted on the BLM-administered parcels. No state-designated recreational lands lie adjacent to any parcels in the AOI. The AOI is in New Mexico Game and Fish game management units (GMUs) 12, 13, 15, 16D, and 16E.

Water

Current use—The AOI contains one existing well (see **Table 3.6**, below).

Table 3.6
Existing Water Rights in AOI: FL – Catron County

Exchange Parcel	Well Permit Number	Use Category	Status	Primary Use
S13	G 02476	Non 72-12-1	Declaration	Livestock watering

Source: BLM 2021d

Special Features

No data are available to confirm if specific species are present on the parcels proposed for exchange; however, Catron County includes lands designated as suitable habitat for the following species: the New Mexico meadow jumping mouse, Mexican wolf, southwestern willow flycatcher, loach minnow, spikedace, Chiricahua leopard frog, Mexican spotted owl, northern Mexican garter snake, narrow-head garter snake, yellow-billed cuckoo, Zuni fleabane, and Gila trout.

There are no known cultural sites on the selected parcels.

Renewables

No known potential—The AOI contains no parcels with predicted resource potential for development of wind energy classifications of “good” or better, and there are no parcels with wind turbine installations

located within a 5-mile radius. There are 36 acres (less than 1 percent of lands within the AOI) with a solar energy DNI of 7.5 or greater.

AOI: FL – DOÑA ANA

General Overview

This AOI includes approximately 15,937 acres of BLM-administered lands proposed for exchange in Doña Ana County; the lands are located on 26 parcels. Exchange parcels contained in this AOI are primarily composed of mixed desert and upland scrub terrain. Land uses are largely undeveloped, but parcels occur in close proximity to surface mining operations west of Las Cruces and on marginal lands near urbanized areas of Las Cruces. Grazing is an existing land use that occurs in the vicinity of the AOI. The BLM Las Cruces DO administers all the lands proposed for exchange.

Access

Most parcels can be accessed directly from paved or unpaved roads, including Highway 70/Interstate 10, Interstate 25, Robert Larson Boulevard, East University Avenue, Sonoma Ranch Road, Gaseline Road, County Road D087, and Las Vistas Road.

Baseline Land Use Data

Minerals

Unknown use potential—Parcels selected for exchange have no current leases or ongoing development; however, there are active mines present within 5 miles of parcels within the AOI.

ROW Development

Known use—There are existing or pending ROW authorizations on parcels selected for exchange (**Table 3.7**).

Table 3.7
Existing ROW Permits in AOI: FL – Doña Ana

ROW Permit Number	Row Permit Name	ROW Category	Acres	Expiration Date
161	El Paso Natural Gas Co.	Pipeline	unknown	N/A
895	El Paso Electric Co.	Transmission	2	December 31, 2047
3177	El Paso Electric Co.	Transmission	4	December 31, 2048
8382	Public Service Co. of NM	Transmission	4	N/A
9914	Sierra Electric Corp.	Transmission	3	December 31, 2049
11638	Qwest Corp.	Communication	4	April 9, 2021
11657	El Paso Electric Co.	Transmission	1	December 31, 2049
12777	Qwest Corp.	Communication	1	May 5, 2021
14029	NM State Highway Department	Roads	unknown	N/A
15496	Qwest Corp.	Communication	unknown	July 8, 2024
15547	El Paso Electric Co.	Transmission	unknown	November 5, 2030
16349	Magellan Pipeline Co.	Pipeline	unknown	N/A
16369	El Paso Electric Co.	Transmission	unknown	February 2, 2025
17963	AT&SF Railway Co.	Railroad	unknown	N/A
18856	SFPP LP	Pipeline	unknown	N/A
22470	La Union Natural Res.	Miscellaneous	unknown	N/A
22519	NM State Highway Department	Roads	unknown	N/A

ROW Permit Number	Row Permit Name	ROW Category	Acres	Expiration Date
22986	Public Service Co. of NM	Transmission	12	September 7, 2026
24854	NM State Highway Department	Roads	unknown	N/A
26442	Public Service Co. of NM	Transmission	13	September 6, 2026
29898	El Paso Electric Co.	Transmission	15	December 31, 2026
32667	City of Alamogordo	Water Facilities	2	December 14, 2008
34487	Qwest Corp.	Communication	5	December 31, 2039
36301	City of Las Cruces	Energy	unknown	N/A
40739	IBWS US & Mexico	Withdrawal	unknown	N/A
46676	NM SLO	Road	3	February 5, 2012
52926	City of Las Cruces	Water Facilities	9	December 31, 2039
52928	City of Las Cruces	Recreation and Public Purposes	unknown	April 3, 2044
52932	El Paso Electric Co.	Transmission	1	December 31, 2036
52971	El Paso Electric Co.	Transmission	8	December 31, 2037
55653	NM State University	Withdrawal	unknown	N/A
57029	Doña Ana County	Roads	3	N/A
57521	El Paso Natural Gas Co.	Pipeline	unknown	N/A
58293	Otero County Electric Corp.	Transmission	5	December 31, 2048
41192	Federal Highway Administration	Roads	4	N/A
61204	Magellan Pipeline Co.	Pipeline	unknown	N/A
61205	AT&T GRE Lease Administration	Communication	2	February 24, 2036
63328	NM State Highway Department	Roads	unknown	N/A
64563	AT&T GRE Lease Administration	Communication	unknown	January 31, 2022
64867	El Paso Natural Gas Co.	Pipeline	unknown	N/A
66065	Tri State G&G Association	Transmission	unknown	N/A
66376	US Telephone Co. Inc.	Communication	14	August 6, 2036
69986	Las Cruces School DI #2	Recreation and Public Purposes	unknown	N/A
70078	City of Las Cruces	Water	18	July 29, 2021
70352	NM State Highway Department	Roads	unknown	N/A
77523	El Paso Electric Co.	Transmission	unknown	December 31, 2043
77635	NM State Corrections Department	Recreation and Public Purposes	unknown	N/A
77637	Town of Mesilla	Water	1	November 29, 2014
83846	City of Las Cruces	Roads	1	
83889	El Paso Electric Co.	Transmission	1	December 31, 2047
83921	NM Facilities Department	Recreation and Public Purposes	unknown	
83956	El Paso Natural Gas Co.	Pipeline	unknown	May 18, 2015
86821	City of Las Cruces Utilities	Pipeline	unknown	June 24, 2018
90660	Western NM Communication Co.	Communication	8	November 3, 2044
91724	El Paso Electric Co.	Transmission	1	December 31, 2048
92999	El Paso Electric Co.	Transmission	5	December 31, 2048
93537	City of Las Cruces	Water	unknown	July 31, 2020
93559	Doña Ana County	Other	unknown	August 3, 2020
94745	City of Las Cruces	Roads	unknown	December 31, 2020
96518	Crown Comm. Inc.	Communication	1	November 14, 2021

ROW Permit Number	Row Permit Name	ROW Category	Acres	Expiration Date
98499	El Paso Electric Co.	Transmission	2	July 17, 2022
98502	El Paso Electric Co.	Transmission	2	N/A
98522	El Paso Electric Co.	Transmission	unknown	December 31, 2022
98528	State of NM	Recreation and Public Purposes	unknown	N/A
99278	City of Las Cruces	Pipeline	2	October 26, 2020
100754	City of Las Cruces	Other	unknown	N/A
100773	Qwest Corp.	Communication	2	May 24, 2024
101731	Doña Ana County Flood Control	Water	unknown	July 21, 2049
102648	AT&T GRE Lease Administration	Communication	2	December 31, 2021
104110	El Paso Electric Co.	Transmission	1	July 16, 2026
104117	NM State Highway Department	Roads	unknown	N/A
104126	NM Gas Co.	Pipeline	1	April 2, 2026
104128	Village of Hatch	Pipeline	1	April 2, 2026
104132	Las Cruces School DI #2	Surface Management Mining	unknown	N/A
104169	City of Las Cruces	Water	1	June 1, 2026
106193	El Paso Global Networks	Communication	unknown	January 25, 2012
107570	Other FLPMA	Natural Gas Processing	1	July 10, 2028
108811	Key Communications Inc.	Communication	1	September 28, 2024
108818	Village of Hatch	Pipeline	2	
110628	SFPP LP	Pipeline	unknown	December 31, 2034
112028	City of Las Cruces	Other	2	December 31, 2026
115541	State of NM	Pipeline	3	December 31, 2037
115452	El Paso Electric Co.	Transmission	unknown	N/A
115917	Qwest Corp.	Communication	unknown	December 31, 2035
117512	Doña Ana County	Roads	unknown	August 25, 2039
118968	BLM Las Cruces District Office	Roads	unknown	December 31, 2010
119604	City of Las Cruces	Pipeline	6	December 31, 2032
120879	Qwest Corp.	Communication	7	December 31, 2018
120104	Department of Homeland Security	Other	unknown	December 31, 2028
121419	NM State University	Roads	3	December 31, 2033
122009	Doña Ana County	Roads	unknown	N/A
124104	Southline Transmission LLC	Transmission	8	December 31, 2045
124568	Qwest Corp.	Communication	unknown	January 1, 2039
124627	El Paso Electric Co.	Transmission	unknown	N/A
125350	Qwest Corp.	Communication	6	December 31, 2042
125786	Qwest Corp.	Communication	1	March 10, 2041
125943	City of Las Cruces	Other	1	December 31, 2040
126960	City of Las Cruces	Pipeline	unknown	December 31, 2040
127115	Magellan Pipeline Co.	Pipeline	unknown	December 31, 2022
127485	El Paso Electric Co.	Transmission	8	December 31, 2040
127713	Doña Ana County	Roads	unknown	May 31, 2013
128702	State of NM	Water	unknown	December 31, 2042
128791	El Paso Electric Co.	Transmission	1	December 31, 2041

ROW Permit Number	Row Permit Name	ROW Category	Acres	Expiration Date
129320	City of Las Cruces	Pipeline	6	December 31, 2042
129484	Qwest Corp.	Communication	3	December 31, 2042
129489	El Paso Electric Co.	Transmission	7	July 11, 2047
130593	Qwest Corp.	Communication	2	December 31, 2042
130955	Qwest Corp.	Communication	15	December 31, 2043
131403	El Paso Electric Co.	Transmission	unknown	December 31, 2044
134177	Qwest Corp.	Communication	11	December 31, 2046
137078	JMBMMM LLC	Roads	1	December 31, 2043
168986	SFPP LP	Pipeline	unknown	N/A
315763	El Paso Electric Co.	Transmission	unknown	December 31, 2041
437648	El Paso Electric Co.	Transmission	unknown	December 31, 2042
554337	NM State Highway Department	Roads	unknown	N/A
554551	NM State Highway Department	Material Sites	unknown	N/A
554552	El Paso Electric Co.	Transmission	unknown	December 31, 2047
556656	NM State Highway Department	Roads	unknown	N/A
557238	NM State Highway Department	Material Sites	unknown	N/A
558148	El Paso Electric Co.	Transmission	unknown	December 31, 2047
5292801	City of Las Cruces	Recreation and Public Purposes	unknown	April 3, 2044
5934504	Las Cruces School DI #2	Conveyance	unknown	N/A
7753402	Las Cruces School DI #2	Recreation and Public Purposes	unknown	N/A
7763501	NM Department of Corrections	Recreation and Public Purposes	unknown	February 3, 2018
8392101	State of NM	Recreation and Public Purposes	unknown	January 1, 2039
9924502	Las Cruces School DI #2	Recreation and Public Purposes	unknown	N/A
10077901	Doña Ana County	Recreation and Public Purposes	unknown	October 7, 2024
111062801	SFPP LP	Pipeline	unknown	N/A
11199701	Las Cruces School DI #2	Recreation and Public Purposes	unknown	June 22, 2030
11199702	Las Cruces School DI #2	Recreation and Public Purposes	unknown	N/A

Source: BLM 2021c

Note: excludes ROWs with less than one acre in AOI parcels and relinquished ROWs

N/A: not applicable, no expiration date

unknown: acres are not mapped in current GIS data and require site-specific verification to determine acres specific in exchange parcels

Livestock Grazing

High use—The AOI overlaps nine grazing allotments with permitted AUMs. An estimated total of 1,244 AUMs are contained in the lands proposed for exchange (see **Table 3.8**, below).

Table 3.8
Livestock Grazing in AOI: FL – Doña Ana

Allotment Number	Allotment Name	Public Acres before Exchange (%)	Acres on Exchange Parcels	Authorized BLM AUMs before Exchange	AUMs on Exchange Parcels
02002	Akela South	5,566 (47%)	320	243	47
03019	Cambray Allotment	3,934 (30%)	3,730	408	396
03064	Placita Arroyo	7,021 (100%)	260	492	36
15008	Hawkeye Canyon	4,316 (94%)	80	395	8
03002	Home Ranch	32,785 (90%)	2,540	2,149	180
03008	Picacho Peak	11,235 (77%)	1,570	822	128
03009	Lazy E	30,890 (56%)	500	3,736	48
03013	Corralitos Ranch	129,949 (70%)	4,360	2,782	377
03029	West Potrillo	94,682 (75%)	90	75	8

Source: BLM 2021a

Acres on exchange parcels are estimates rounded to the nearest 10. AUMs on exchange parcels are estimated based on BLM allotment level carrying capacity estimates.

Recreation

Unknown use potential—Dispersed recreation may occur in the AOI. Dispersed camping and hunting are permitted on the BLM-administered parcels. No state-designated recreational lands lie adjacent to any parcels in the AOI. The AOI is in New Mexico Game and Fish GMUs 19, 20, 25, and 21B.

Water

Current use—There are 17 well permits issued in the AOI, one of which is expired (see **Table 3.9**).

Special Features

No data are available to confirm if specific species are present on the parcels proposed for exchange; however, Doña Ana County includes lands designated as suitable habitat for the southwestern willow flycatcher, Sneed’s pincushion cactus, northern aplomado falcon, and yellow-billed cuckoo.

One parcel in the AOI (parcel 115) overlaps a historic trail, the Butterfield Trail. Although the Butterfield Trail has not obtained congressional designation as a national historic trail, it has been found suitable for designation following a feasibility/suitability study by the National Park Service. Following BLM guidance on managing trail resources, the Butterfield Trail is required to be managed so as to not diminish its suitability for future designation. A second parcel (102) identified for exchange is known to contain prehistoric habitation sites, which likely contain human burials that are protected under the Native American Graves Protection and Repatriation Act of 1990 (NAGPRA) of 1990.

Renewables

Potential for development—The AOI contains no parcels with predicted resource potential for development of wind energy classifications of “good” or better; also, there are no parcels with wind turbine installations located within a 5-mile radius. However, the AOI contains 15,629 acres (98 percent of lands within the AOI) with a solar DNI of 7.5 or greater. Additionally, 3,870 acres of the AOI occur within the Afton Solar Energy Zone, designated as an area with high priority for solar energy development in the BLM’s Solar Programmatic Environmental Impact Statement (BLM 2012).

Table 3.9
Existing Water Rights in AOI: FL – Doña Ana

Exchange Parcel	Well Permit Number	Use Category	Status	Primary Use
LI 44	LRG 14539	Monitoring well	Permit	Monitoring well
LI 63	LRG 09249	72-12-1	Permit	Sanitary in conjunction with a commercial use
LI 63	LRG 01058	Commercial	Declaration	Commercial
LI 77	LRG 04506	Monitoring well	Permit	Monitoring
LI 86	LRG 07037	72-12-1 Domestic one household	Permit	Household
LI 86	LRG 00430	Municipal	Adjudicated	City or county supplied water
LI 86	LRG 03275	Municipal	Permit	City or county supplied water
LI 86	LRG 11846	72-12-1	Expired	Domestic one household
LI 86	LRG 12545	72-12-1	Permit	Domestic one household
LI 86	LRG 06582	Municipal	Permit	City or county supplied water
LI 86	LRG 04741	72-12-1	Adjudicated	Domestic one household
LI 86	LRG 05046	72-12-1	Permit	Domestic one household
LI 86	LRG 05995	72-12-1	Permit	Domestic one household
LI 86	LRG 07296	72-12-1	Permit	Domestic one household
LI 86	LRG 08159	72-12-1	Permit	Domestic one household
LI 86	LRG 05978	72-12-1	Adjudicated	Domestic one household
LI 86	LRG 03275	Municipal	Permit	City or county supplied water

Source: BLM 2021d

AOI: FL – DOÑA ANA BORDER

General Overview

This AOI includes approximately 15,897 acres of BLM-administered lands proposed for exchange in Doña Ana County; the lands are located on three parcels. Exchange parcels contained in this AOI are primarily composed of sand flat scrub typical of the Chihuahuan Desert landscape. Land uses are largely undeveloped, but parcels occur in close proximity to the Union Pacific Railroad Strauss Yard Facility's Santa Teresa Intermodal Terminal west of El Paso and a recreational shooting range north of El Paso. Grazing is an existing land use that occurs in the vicinity of the AOI. The BLM Las Cruces DO administers all the lands proposed for exchange.

Access

Most parcels in the AOI can be accessed directly from paved or unpaved roads, some of which are unimproved roads. These roads include County Road A017, Cross Tie Road, Columbus Road, and Strauss Road. Other parcels can be accessed from adjacent BLM-administered lands.

Baseline Land Use Data

Minerals

Unknown use potential—Parcels selected for exchange have no current leases or ongoing development; however, there are active mines present within 5 miles of parcels within the AOI.

ROW Development

Known use—There are existing or pending ROW authorizations on parcels selected for exchange (**Table 3.10**).

Table 3.10
Existing ROW Permits in AOI: FL – Doña Ana Border

ROW Permit Number	Row Permit Name	ROW Category	Acres	Expiration Date
794	El Paso Electric Co.	Transmission	2	December 31, 2047
3166	El Paso Natural Gas Co.	Pipeline	4	N/A
16349	Magellan Pipeline Co.	Pipeline	2	December 31, 2026
29258	El Paso Electric Co.	Transmission	4	December 31, 2049
59304	New Mexico Gas Co.	Transmission	8	December 31, 2049
86760	El Paso Electric Co.	Transmission	5	December 31, 2038
123499	AT&T GRE Lease Administration	Communication	2	December 31, 2019
123500	Doña Ana County	Pipeline	2	July 22, 2041
125905	Doña Ana County	Roads	3	December 31, 2041
127593	Valley Tel Coop	Communication	7	December 31, 2024

Source: BLM 2021c

Note: excludes ROWs with less than one acre in AOI parcels and relinquished ROWs

N/A: not applicable, no expiration date

unknown: acres are not mapped in current GIS data and require site-specific verification to determine acres specific in exchange parcels

Livestock Grazing

High use—The AOI overlaps four grazing allotments with permitted AUMs. An estimated total of 791 AUMs are contained in the lands proposed for exchange (see **Table 3.11**, below).

Table 3.11
Livestock Grazing in AOI: FL – Doña Ana Border

BLM Allotment Number	BLM Allotment Name	Public Acres before Exchange (%)	Acres on Exchange Parcels	Authorized BLM AUMs before Exchange	BLM AUMs on Exchange Parcels
03020	Beacon	58,002 (91%)	9,970	4,084	650
03022	La Union	41,670 (87%)	3,000	2,495	57
03023	Kilbourne Hole	85,488 (92%)	1,380	5,741	69
15001	Chaparral	16,018 (45%)	440	540	15

Source: BLM 2021a

Acres on exchange parcels are estimates rounded to the nearest 10. AUMs on exchange parcels are estimated based on BLM allotment level carrying capacity estimates.

Recreation

Unknown use potential—Dispersed recreation may occur in the AOI. Dispersed camping and hunting are permitted on the BLM-administered parcels. No state-designated recreational lands lie adjacent to any parcels in the AOI. The AOI is in New Mexico Game and Fish GMUs 19 and 25.

Water

Current use—The AOI contains one existing well (see **Table 3.12**, below).

Table 3.12
Existing Water Rights in AOI: FL – Doña Ana Border

Exchange Parcel	Well Permit Number	Use Category	Status	Primary Use
L216	016159	72-12-1	Permit	Domestic one household

Source: BLM 2021d

Special Features

No data are available to confirm if specific species are present on the parcels proposed for exchange; however, Doña Ana County includes lands designated as suitable habitat for the southwestern willow flycatcher, Sneed's pincushion cactus, northern aplomado falcon, and yellow-billed cuckoo.

There are no known cultural sites on the selected parcels.

Renewables

Potential for development—The AOI contains no parcels with predicted resource potential for development of wind energy classifications of “good” or better; there are also no parcels with wind turbine installations located within a 5-mile radius. However, there are 15,723 acres (99 percent of lands within the AOI) with a solar DNI of 7.5 or greater.

AOI: FL – GRANT/LUNA BORDER

General Overview

This AOI includes approximately 2,204 acres of BLM-administered lands proposed for exchange in Grant County; the lands are located on five parcels. Exchange parcels contained in this AOI are primarily composed of semidesert grassland and steppe terrain. Land uses are undeveloped and may include passive recreation within White Rock Canyon or on parcels located southeast of City of Rocks State Park. Grazing is an existing land use that occurs in the vicinity of the AOI. The BLM Las Cruces DO administers all the lands proposed for exchange.

Access

Parcels are accessible from Highway 61, Taylor Mountain Road, and several unnamed roads. Overland cross-county travel is also available via adjacent state-managed lands.

Baseline Land Use Data

Minerals

Unknown use potential—Parcels selected for exchange have no current leases or ongoing development; however, there are active mines present within 5 miles of parcels within the AOI.

ROW Development

Known use—There are existing or pending ROW authorizations on parcels selected for exchange (**Table 3.13**).

Livestock Grazing

Medium use—The AOI overlaps four grazing allotments with permitted AUMs. An estimated total of 458 AUMs are contained in the lands proposed for exchange (see **Table 3.14**, below).

Recreation

Unknown use potential—Dispersed recreation may occur in the AOI. Dispersed camping and hunting are permitted on the BLM-administered parcels. State-designated recreation land, City of Rocks State Park, is in the vicinity of the AOI. The AOI is in New Mexico Game and Fish GMU 24.

Table 3.13
Existing ROW Permits in AOI: FL – Grant/Luna Border

ROW Permit Number	Row Permit Name	ROW Category	Acres	Expiration Date
80143	New Mexico State Highway Department	Federal Aid Highway	8	N/A
90660	Western NM Communication Co.	Communication	8	November 3, 2044
132716	Western NM Communication Co.	Communication	8	December 31, 2038

Source: BLM 2021c

Note: excludes ROWs with less than one acre in AOI parcels and relinquished ROWs

N/A: not applicable, no expiration date

unknown: acres are not mapped in current GIS data and require site-specific verification to determine acres specific in exchange parcels

Table 3.14
Livestock Grazing in AOI: FL – Grant / Luna Border

Allotment Number	Allotment Name	Public Acres before Exchange (%)	Acres on Exchange Parcels	Authorized BLM AUMs before Exchange	AUMs on Exchange Parcels
02525	Table Mountain Lease	1,800 (100%)	1,800	372	372
04508	Faywood Lease	40 (100%)	40	12	12
04527	Cordwood Draw Lease	660 (100%)	340	150	72
04553	Blue Mountain Lease	40 (100%)	40	12	12

Source: BLM 2021a

Acres on exchange parcels are estimates rounded to the nearest 10. AUMs on exchange parcels are estimated based on BLM allotment level carrying capacity estimates.

Water

Not a current use—No wells or existing water rights were identified on parcels selected for exchange.

Special Features

No data are available to confirm if specific species are present on the parcels proposed for exchange; however, Grant County includes lands designated as suitable habitat for the yellow-billed cuckoo, Chiricahua leopard frog, and beautiful shiner.

There are no known cultural sites on the selected parcels. One parcel in the AOI (parcel 87) is known to contain prehistoric habitation sites, which likely contain human burials that are protected under the NAGPRA.

Renewables

Potential for development—The AOI contains no parcels with predicted resource potential for development of wind energy classifications of “good” or better; also, there are no parcels with wind turbine installations located within a 5-mile radius. However, there are 2,204 acres (100 percent of lands within the AOI) with a solar DNI of 7.5 or greater.

AOI: FL – GRANT OUTLIER

General Overview

This AOI includes approximately 240 acres of BLM-administered lands proposed for exchange in Grant County; the lands are located on two parcels dominated by pinyon-juniper woodlands within Blacksmith Canyon, less than 2 miles northeast of the town of Mangas Springs. Lands are undeveloped, although grazing is an existing land use that occurs in the vicinity of the AOI. The BLM Las Cruces DO administers all the lands proposed for exchange.

Access

No vehicle access is available on parcels within this AOI; however, permitted users can access the AOI by cross-country travel via adjacent state-managed lands.

Baseline Land Use Data

Minerals

Unknown use potential—No minerals are being developed on selected parcels within the AOI; also, there are no areas of active use in the immediate region, including active oil or gas leases or mines, within 5 miles of parcels within the AOI.

ROW Development

Not a current land use—There are no existing authorizations on parcels selected for exchange; restrictions on ROWs may apply.

Livestock Grazing

Low use—The AOI overlaps two grazing allotments with permitted AUMs. An estimated total of 84 AUMs are contained in the lands proposed for exchange (see **Table 3.15**, below).

Table 3.15
Livestock Grazing in AOI: FL – Grant Outlier

Allotment Number	Allotment Name	Public Acres before Exchange (%)	Acres on Exchange Parcels	Authorized BLM AUMs before Exchange	AUMs on Exchange Parcels
04520	Blacksmith Canyon Lease	200 (100%)	200	60	60
04535	Mangas Valley Lease	405 (100%)	80	120	24

Source: BLM 2021a

Acres on exchange parcels are estimates rounded to the nearest 10. AUMs on exchange parcels are estimated based on BLM allotment level carrying capacity estimates

Recreation

Unknown use potential—Dispersed recreation may occur in the AOI. Dispersed camping and hunting are permitted on the BLM-administered parcels. No state-designated recreation lands are in the vicinity of the AOI. The AOI is in New Mexico Game and Fish GMU 24.

Water

Not a current use—No wells or existing water rights were identified on parcels selected for exchange.

Special Features

No data are available to confirm if specific species are present on the parcels proposed for exchange; however, Grant County includes lands designated as suitable habitat for the Gila topminnow, Mexican long-nosed bat, loach minnow, Gila chub, Mexican wolf, spikedace, southwestern willow flycatcher, yellow-billed cuckoo, Gila trout, Mexican spotted owl, narrow-headed garter snake, Chiricahua leopard frog and Chihuahua chub.

There are no known cultural sites on the selected parcels.

Renewables

No known potential—The AOI contains no parcels with predicted resource potential for development of wind energy classifications of “good” or better, and no parcels with wind turbine installations located within a 5-mile radius. There are 35 acres (15 percent of lands within the AOI) with a solar DNI of 7.5 or greater.

AOI: FL – GRANT PANHANDLE

General Overview

This AOI includes approximately 31,594 acres of BLM-administered lands proposed for exchange in Grant County; the lands are located on 38 parcels. Exchange parcels contained in this AOI are predominantly composed of semidesert grassland and steppe terrain. Land uses are undeveloped with no identifiable primary use other than grazing, which is a major land use occurring in the vicinity of the AOI. The BLM Las Cruces DO administers all the lands proposed for exchange.

Access

Unnamed dirt roads pass through some of the selected parcels in this AOI and provide vehicle access. The AOI includes parcels adjacent to state-administered lands, and users may be permitted access.

Baseline Land Use Data

Minerals

Unknown use potential—No minerals are being developed on selected parcels within the AOI; there also are no areas of active use in the immediate region, including active oil or gas leases or mines, within 5 miles of parcels within the AOI.

ROW Development

Known use—There are existing or pending ROW authorizations on parcels selected for exchange (**Table 3.16**).

Table 3.16
Existing ROW Permits in AOI: FL – Grant Panhandle

ROW Permit Number	Row Permit Name	ROW Category	Acres	Expiration Date
3182	El Paso Natural Gas Co.	Pipeline	10	N/A
18879	Qwest Corp.	Communication	13	October 26, 2023
22986	Public Service Co. of NM	Transmission	13	September 7, 2026
24893	Columbus Electric Corp.	Transmission	5	August 20, 2025
26442	Public Service Co. of NM	Transmission	13	September 6, 2026
34268	El Paso Natural Gas Co.	Pipeline	1	December 31, 2038
43087	El Paso Natural Gas Co.	Pipeline	18	N/A
52981	Grant County	Roads	14	N/A
52994	The Zia Connection	Communication	1	October 20, 2013
66376	US Telecom Inc.	Communication	13	August 6, 2036
102648	AT&T GRE Lease Administration	Communication	23	December 31, 2021
104168	Tri-State Generation & Transmission Association	Transmission	1	June 17, 2027
124104	Southland Transmission LLC	Transmission	13	December 31, 2045
131992	Columbus Electric Corp.	Transmission	1	December 31, 2035
132154	Columbus Electric Corp.	Transmission	1	December 31, 2035
132155	Columbus Electric Corp.	Transmission	7	December 31, 2035
134182	Qwest Corp.	Communication	2	December 31, 2046
136167	Columbus Electric Corp.	Transmission	10	December 31, 2048

Source: BLM 2021c

Note: excludes ROWs with less than one acre in AOI parcels and relinquished ROWs

N/A: not applicable, no expiration date

unknown: acres are not mapped in current GIS data and require site-specific verification to determine acres specific in exchange parcels

Livestock Grazing

High use—The AOI overlaps 15 grazing allotments with permitted AUMs. An estimated total of 4,587 AUMs are contained in the lands proposed for exchange (see **Table 3.17**, below).

Table 3.17
Livestock Grazing in AOI: FL – Grant Panhandle

Allotment Number	Allotment Name	Public Acres before Exchange (%)	Acres on Exchange Parcels	Authorized BLM AUMs before Exchange	AUMs on Exchange Parcels
01560	Muir Exit Lease	1,640 (100%)	1,620	288	288
02054	Southwell Ranch	87,557 (57%)	610	12,860	96
02057	Hachita Highway	2,330 (100%)	2,330	420	420
04505	Separ Lease	375 (100%)	340	48	48
04509	96 Creek Lease	270 (100%)	270	48	48

Allotment Number	Allotment Name	Public Acres before Exchange (%)	Acres on Exchange Parcels	Authorized BLM AUMs before Exchange	AUMs on Exchange Parcels
04514	Hachita Divide Lease	4,465 (100%)	4,210	881	830
04518	McDonald Draw Lease	465 (100%)	465	14	14
04523	White Rock Canyon Lease	2,320 (100%)	2,320	684	684
04525	Hay Draw Lease ¹	9,202 (100%)	8,970	-	888
04529	Still Canyon Lease	3,597 (100%)	120	1,104	30
04530	Burro Cienega Lease	2,820 (100%)	2,350	499	451
04545	Brockman Lease	160 (100%)	160	24	24
04549	Saltys Lease	810 (100%)	460	168	168
04554	Smith Draw Lease	2,560 (100%)	1,210	432	216
04555	Jarrell Ranch Lease	7,126 (100%)	7,070	1,136	1,030
04599	Separ Ranch Lease	1,770 (100%)	1,770	240	240

Source: BLM 2021a

¹Acres represent total in West Luna and Grant Panhandle AOIs

Acres on exchange parcels are estimates rounded to the nearest 10. AUMs on exchange parcels are estimated based on BLM allotment level carrying capacity estimates.

Recreation

Unknown use potential—Dispersed recreation may occur in the AOI. Dispersed camping and hunting are permitted on the BLM-administered parcels. Some of the parcels will have no recreation due to being surrounded by private lands that prevent access. No state-designated recreation lands are in the vicinity of the AOI. The AOI is in New Mexico Game and Fish GMUs 23, 25, and 26. The Continental Divide Trail crosses a less than 1-mile portion of parcels within this AOI.

Water

Current use—Three active wells are present in the AOI, including two for irrigation and one for livestock watering. One additional closed file is also present (**Table 3.18**).

Table 3.18
Existing Water Rights in AOI: FL – Grant Panhandle

Exchange Parcel	Well Permit Number	Use Category	Status	Primary Use
LI85	LV 00275	Irrigation	Permit	Irrigation
LI85	LV 00276	Irrigation	Permit	Irrigation
LI85	LV 00288	Closed File	Closed File	Closed File
LI85	LV00580	Non 72-12-1	Declaration	Livestock watering

Source: BLM 2021d

Special Features

No data are available to confirm if specific species are present on the parcels proposed for exchange; however, Grant County includes lands designated as suitable habitat for the following species: northern aplomado falcon, Gila topminnow, Mexican long-nosed bat, loach minnow, Gila chub, Mexican wolf,

spikedace, southwestern willow flycatcher, yellow-billed cuckoo, Gila trout, Mexican spotted owl, narrow-headed garter snake, Chiricahua leopard frog, and Chihuahua chub.

There are no known cultural sites on the selected parcels.

Renewables

Potential for development—The AOI contains 173 acres with predicted resource potential for development of wind energy classifications of “good” or better. There are no parcels with wind turbine installations located within a 5-mile radius. However, there are 31,594 acres (100 percent of lands within the AOI) with a solar DNI of 7.5 or greater.

AOI: FL – HIDALGO

General Overview

This AOI includes approximately 240 acres of BLM-administered lands proposed for exchange in Hidalgo County; the land is located on one parcel, which is composed of semidesert grassland and steppe terrain. Land use is transportation oriented, as the parcel includes a portion of Interstate 10. The BLM Las Cruces DO administers the land.

Access

A frontage road associated with Interstate 10 passes through the one selected parcel in this AOI and provides vehicle access. The parcel is surrounded by private lands, which prevent access.

Baseline Land Use Data

Minerals

Unknown use potential—No minerals are being developed on the parcel within the AOI; also, there are no areas of active use in the immediate region, including active oil or gas leases or mines, within 5 miles of the parcel within the AOI.

ROW Development

Known use—There are existing or pending ROW authorizations on parcels selected for exchange (**Table 3.19**).

Table 3.19
Existing ROW Permits in AOI: FL – Hidalgo

ROW Permit Number	Row Permit Name	ROW Category	Acres	Expiration Date
2300	NM State Highway Department	Roads	2	N/A
13862	AT&T GRE Lease Administration	Communication	2	June 16, 2022
57346	El Paso Natural Gas Co.	Pipeline	unknown	N/A
57521	El Paso Natural Gas Co.	Pipeline	Unknown	N/A
58297	Western NM Telephone Co.	Communication	Unknown	October 26, 2023
83956	El Paso Natural Gas Co.	Pipeline	Unknown	May 18, 2015
102648	AT&T GRE Lease Administration	Communication	2	December 31, 2021

ROW Permit Number	Row Permit Name	ROW Category	Acres	Expiration Date
106193	El Paso Global Networks	Communication	Unknown	January 25, 2012
110628	SFPP LP	Pipeline	unknown	December 31, 2024
554830	El Paso Natural Gas Co.	Pipeline	Unknown	N/A

Source: BLM 2021c

Note: excludes ROWs with less than one acre in AOI parcels and relinquished ROWs

N/A: not applicable, no expiration date

unknown: acres are not mapped in current GIS data and require site-specific verification to determine acres specific in exchange parcels

Livestock Grazing

Low use—The AOI overlaps one grazing allotment with permitted AUMs. An estimated total of 36 AUMs are contained in the lands proposed for exchange (see **Table 3.20**, below).

Table 3.20
Livestock Grazing in AOI: FL – Hidalgo

Allotment Number	Allotment Name	Public Acres before Exchange (%)	Acres on Exchange Parcels	Authorized BLM AUMs before Exchange	AUMs on Exchange Parcels
01553	Koff Lease	190 (100%)	190	36	36

Source: BLM 2021a

Acres on exchange parcels are estimates rounded to the nearest 10. AUMs on exchange parcels are estimated based on BLM allotment level carrying capacity estimates.

Recreation

Not a current land use—No recreational use occurs on the parcel, which is surrounded by private lands that prevent access.

Water

Not a current use—One closed file is present (LV 00212), but no active water permits are located in the AOI.

Special Features

No data are available to confirm if specific species are present on the parcels proposed for exchange; however, Hidalgo County includes lands designated as suitable habitat for the following species: Yaqui chub, Yaqui catfish, Huachuca water-umbel, Cochise pincushion cactus, Chiricahua leopard frog, Mexican long-nosed bat, northern Mexican garter snake, loach minnow, New Mexican ridge-nosed rattlesnake, Mexican spotted owl, southwestern willow flycatcher, spikedace, Mexican wolf, narrow-headed garter snake, and yellow-billed cuckoo.

There are no known cultural sites on the selected parcel.

Renewables

Potential for development—The AOI contains no parcels with predicted resource potential for development of wind energy classifications of “good” or better, and no parcels with wind turbine

installations located within a 5-mile radius. However, there are 240 acres (100 percent of lands within the AOI) with a solar DNI of 7.5 or greater.

AOI: FL – EAST LUNA

General Overview

This AOI includes approximately 8,511 acres of BLM-administered lands proposed for exchange in Luna County; the lands are located on 19 parcels. Exchange parcels contained in this AOI are primarily composed of semidesert grassland, mixed desert, and thorn scrub. The lands are undeveloped, although grazing is an existing land use that occurs in the vicinity of the AOI. Nearby lands include agricultural and residential uses near the city of Deming. The BLM Las Cruces DO administers all the lands proposed for exchange.

Access

The majority of parcels in the AOI are located immediately north of Interstate 10, which passes through the area. Vehicle access is provided via unmaintained, natural surface roadways that traverse parcels within the AOI. Parcels are located adjacent to state and private lands, and users may be permitted access. Two parcels located south of the interstate are accessed via Monte Vista Road.

Baseline Land Use Data

Minerals

Unknown use potential—Parcels selected for exchange have no current leases or ongoing development; however, there are active mines present within 5 miles of parcels within the AOI.

ROW Development

Known use—There are existing or pending ROW authorizations on parcels selected for exchange (**Table 3.21**).

Table 3.21
Existing ROW Permits in AOI: FL – East Luna

ROW Permit Number	Row Permit Name	ROW Category	Acres	Expiration Date
7099	NM Gas Co.	Pipeline	3	N/A
8382	Public Service Co. of NM	Transmission	7	December 31, 2049
29898	El Paso Electric	Transmission	29	December 31, 2026
124104	Southline Transmission Co.	Transmission	15	December 31, 2045

Source: BLM 2021c

Note: excludes ROWs with less than one acre in AOI parcels and relinquished ROWs

N/A: not applicable, no expiration date

unknown: acres are not mapped in current GIS data and require site-specific verification to determine acres specific in exchange parcels

Livestock Grazing

Medium use—The AOI overlaps five grazing allotments with permitted AUMs. An estimated total of 972 AUMs are contained in the lands proposed for exchange (see **Table 3.22**, below).

Table 3.22
Livestock Grazing in AOI: FL – East Luna

Allotment Number	Allotment Name	Public Acres before Exchange (%)	Acres on Exchange Parcels	Authorized BLM AUMs before Exchange	AUMs on Exchange Parcels
02031	Akela North	3,528 (26%)	650	420	72
02501	Akela West Lease	1,620 (100%)	960	108	60
02508	Deming Lease	6,494 (100%)	3,110	708	396
02519	Simpson Lease	5,100 (100%)	3,420	648	432
02534	Carne Lease	183 (100%)	180	12	12

Source: BLM 2021a

Acres on exchange parcels are estimates rounded to the nearest 10. AUMs on exchange parcels are estimated based on BLM allotment level carrying capacity estimates.

Recreation

Unknown use potential—Dispersed recreation may occur in the AOI. Dispersed camping and hunting are permitted on the BLM-administered parcels. Some of the parcels will have no recreation due to being surrounded by private lands that prevent access. No state-designated recreation lands are in the vicinity of the AOI. The AOI is in New Mexico Game and Fish GMUs 25 and 21B.

Water

Not a known use—There are no wells identified on parcels selected for exchange.

Special Features

No data are available to confirm if specific species are present on the parcels proposed for exchange; however, Luna County includes lands designated as suitable habitat for the following species: northern aplomado falcon, beautiful shiner, Chiricahua leopard frog, and yellow-billed cuckoo.

There are no known cultural sites on the selected parcel.

Renewables

Potential for development—The AOI contains no parcels with predicted resource potential for development of wind energy classifications of “good” or better; also, there are no parcels with wind turbine installations located within a 5-mile radius. However, there are 8,511 acres (100 percent of lands within the AOI) with a solar DNI of 7.5 or greater.

AOI: FL – WEST LUNA

General Overview

This AOI includes approximately 12,503 acres of BLM-administered lands proposed for exchange in Luna County; the lands are located on 30 parcels. Exchange parcels contained in this AOI are predominantly composed of semidesert grassland and steppe terrain. Land uses are undeveloped with no identifiable primary use other than grazing, which is a major land use occurring in the vicinity of the AOI. The BLM Las Cruces DO administers all the lands proposed for exchange.

Access

Some parcels are accessible by vehicle using paved or unpaved roads. These roads include County Roads D008 and D007, Highway 70/Interstate 10, Quincy Road, Cow Springs Road, and several unnamed roads. Parcels not accessible by road are adjacent to state-administered lands, and users may be permitted access.

Baseline Land Use Data

Minerals

Unknown use potential—Parcels selected for exchange have no current leases or ongoing development; however, there are active mines present within 5 miles of parcels within the AOI.

ROW Development

Known use—There are existing or pending ROW authorizations on parcels selected for exchange (**Table 3.23**).

Table 3.23
Existing ROW Permits in AOI: FL – West Luna

ROW Permit Number	Row Permit Name	ROW Category	Acres	Expiration Date
1800	El Paso Natural Gas Co.	Pipeline	2	N/A
3182	El Paso Natural Gas Co.	Pipeline	7	N/A
9485	Bureau of Reclamation	Communication	1	September 11, 2019
18879	Qwest Corp.	Communication	5	October 26, 2023
22986	Public Service Co. of NM	Transmission	12	September 7, 2026
26442	Public Service Co. of NM	Transmission	12	February 6, 2026
52923	Qwest Corp.	Transmission	2	September 30, 2012
52983	Luna County	Roads	2	N/A
66376	US Telecom Inc.	Communication	8	August 6, 2036
102648	AT&T GRE Lease Administration	Communication	5	December 31, 2021
117257	Qwest Corp.	Communication	1	December 31, 2031
124104	Southline Transmission Inc.	Transmission	12	December 31, 2045
132145	Columbus Electric Corp.	Transmission	1	December 31, 2045
134472	Public Service Co. of NM	Transmission	1	December 31, 2049

Source: BLM 2021c

Note: excludes ROWs with less than one acre in AOI parcels and relinquished ROWs

N/A: not applicable, no expiration date

unknown: acres are not mapped in current GIS data and require site-specific verification to determine acres specific in exchange parcels

Livestock Grazing

Medium use—The AOI overlaps 14 grazing allotments with permitted AUMs. An estimated total of 1,456 AUMs are contained in the lands proposed for exchange (see **Table 3.24**, below).

Table 3.24
Livestock Grazing in AOI: FL – West Luna

Allotment Number	Allotment Name	Public Acres before Exchange (%)	Acres on Exchange Parcels	Authorized BLM AUMs before Exchange	AUMs on Exchange Parcels
02502	Grandmother Mountain Lease	1,080 (100%)	1,060	144	132
02505	Black Mountain Ranch	639 (100%)	640	120	120
02509	Little Grandmother Mountain	2,683 (100%)	2,650	372	360
02514	Porter Draw Lease	160 (100%)	145	24	24
02516	Catfish Cove Lease	560 (100%)	540	96	96
02522	Jones Spring Draw Lease	280 (100%)	280	48	48
02526	Antelope Draw Lease	2,990 (100%)	1,210	660	276
02528	Butterfield Lease	320(100%)	320	24	24
02535	Double Bar V Lease	178 (100%)	170	24	24
02537	Cow Springs Lease	1,442 (100%)	500	162	63
02541	Cow Springs Draw Lease	320 (100%)	320	24	24
02543	Old Town Lease	400 (100%)	150	96	36
02545	S Taylor Mountain Lease	160 (100%)	110	24	24
02546	Taylor Mountain Lease	600 (100%)	600	96	96
04525	Hay Draw Lease ¹	9,202 (100%)	8,970	1,740	816

Source: BLM 2021a

¹Acres and total AUMs before exchange represent total within both West Luna and Grant Panhandle AOIs

Acres on exchange parcels are estimates rounded to the nearest 10. AUMs on exchange parcels are estimated based on BLM allotment level carrying capacity estimates

Recreation

Unknown use potential—Dispersed recreation may occur in the AOI. Dispersed camping and hunting are permitted on the BLM-administered parcels. No state-designated recreation lands are in the vicinity of the AOI. The AOI is in New Mexico Game and Fish GMUs 23, 24, and 25. The Continental Divide Trail crosses a less than 1-mile portion of parcels within this AOI.

Water

Current use—Two active well permits for irrigation are present in West Luna AOI (**Table 3.25**).

Table 3.25
Existing Water Rights in AOI: FL-West Luna

Exchange Parcel	Well Permit Number	Use Category	Status	Primary Use
LI 56	M 00511	Irrigation	Application	Irrigation
LI 56	M 00512	Irrigation	Application	Irrigation

Source: BLM 2021d

Special Features

No data are available to confirm if specific species are present on the parcels proposed for exchange; however, Luna County includes lands designated as suitable habitat for the following species: northern aplomado falcon, beautiful shiner, Chiricahua leopard frog, and yellow-billed cuckoo.

There are no known cultural sites on the selected parcels.

Renewables

Potential for development—The AOI contains no parcels with predicted resource potential for development of wind energy classifications of “good” or better, and no parcels with wind turbine installations located within a 5-mile radius. However, there are 12,503 acres (100 percent of lands within the AOI) with a solar DNI of 7.5 or greater.

AOI: FL – OTERO*General Overview*

This AOI includes approximately 3,686 acres of BLM-administered lands proposed for exchange in Otero County; the lands are located on 10 parcels. Exchange parcels contained in this AOI are primarily composed of semidesert grassland and steppe and mixed salt desert scrub. The majority of parcels in the AOI are located near Holloman Air Force Base and north of the city of Alamogordo. Land use in the vicinity is mixed.

AOI lands are undeveloped, although grazing is an existing land use that occurs throughout the vicinity of the AOI. Nearby lands include residential uses and other urban development associated with the city of Alamogordo. The BLM Las Cruces DO administers all the lands proposed for exchange.

Access

US Highways 70 and 82 provide access to the majority of parcels in this AOI. For parcels located south of Boles Acres near Highway 54, vehicle access is provided via unmaintained, natural surface roadways. The AOI includes parcels adjacent to private lands and lands administered by the US Forest Service, Department of Defense, and State of New Mexico.

*Baseline Land Use Data*Minerals

Unknown use potential—Parcels selected for exchange have no current leases or ongoing development; however, there are active oil and gas leases and mines present within 5 miles of parcels within the AOI.

ROW Development

Known use—There are existing or pending ROW authorizations on parcels selected for exchange (**Table 3.26**).

Table 3.26
Existing ROW Permits in AOI: FL – Otero

ROW Permit Number	Row Permit Name	ROW Category	Acres	Expiration Date
208	NM Gas Co.	Pipeline	unknown	N/A

ROW Permit Number	Row Permit Name	ROW Category	Acres	Expiration Date
11638	Qwest Corp.	Communication	5	April 9, 2021
21762	NM State Highway Department	Roads	unknown	N/A
25319	NM Gas Co.	Pipeline	unknown	N/A
29838	El Paso Electric Co.	Transmission	unknown	December 31, 2030
35829	US Army - McGregor Range	Withdrawal- Department of Army	unknown	November 6, 2026
44805	US Army- Corps of Engineers	Roads	unknown	June 4, 2015
53282	NM State Highway Department	Roads	unknown	N/A
58293	Otero County Electric Corp.	Transmission	5	December 31, 2048
65240	NM State Highway Department	Roads	unknown	N/A
66065	Tri-State G&T	Transmission	unknown	N/A
69960	US Army- Corps of Engineers	Other	unknown	December 31, 2040
90667	City of Alamogordo	Other	1	N/A
107582	Orogrande Mutual Domestic Water Consumers Association & Mutual Sewage Works Association	Water	unknown	March 27, 2028
125786	Qwest Corp.	Communication	1	March 10, 2041
134721	Public Service Co. of NM	Transmission	3	December 31, 2049
556913	US Army- Corps of Engineers	Transmission	unknown	N/A
558570	Epic Midstream LLC	Power Facility	unknown	N/A

Source: BLM 2021c

Note: excludes ROWs with less than one acre in AOI parcels and relinquished ROWs

N/A: not applicable, no expiration date

unknown: acres are not mapped in current GIS data and require site-specific verification to determine acres specific in exchange parcels

Livestock Grazing

High use—The AOI overlaps seven grazing allotments with permitted AUMs. An estimated total of 315 AUMs are contained in the lands proposed for exchange (see **Table 3.27**, below).

Table 3.27
Livestock Grazing in AOI: FL – Otero

Allotment Number	Allotment Name	Public Acres before Exchange (%)	Acres on Exchange Parcels	Authorized BLM AUMs before Exchange	AUMs on Exchange Parcels
07035	Lone Butte Lease	40 (100%)	40	12	12
07037	Orogrande Ranch	42,457 (89%)	50	2,748	0
07039	Lone Butte	19,048 (82%)	400	2,608	70
07050	Black Ledge	16,002 (40%)	330	1,747	24

Allotment Number	Allotment Name	Public Acres before Exchange (%)	Acres on Exchange Parcels	Authorized BLM AUMs before Exchange	AUMs on Exchange Parcels
07054	Beeman Canyon Lease	1,297	1,230	N/A	N/A
07065	Domingo Springs	7,285 (59%)	520	553	40
07067	Bar H Ranch	8,804 (46%)	1,550	1,248	169

Source: BLM 2021a

Note: N/A = currently not allotted

Acres on exchange parcels are estimates rounded to the nearest 10. AUMs on exchange parcels are estimated based on BLM allotment level carrying capacity estimates

Recreation

Unknown use potential—Dispersed recreation may occur in the AOI. Dispersed camping and hunting are permitted on the BLM-administered parcels. No state-designated recreation lands are in the vicinity of the AOI. The AOI is in New Mexico Game and Fish GMUs 28, 34, and 36.

Water

Current use—Ten active well permits for irrigation are present in the AOI (**Table 3.28**).

Special Features

No data are available to confirm if specific species are present on the parcels proposed for exchange; however, Otero County includes lands designated as suitable habitat for the following species: Todsen's pennyroyal, Sacramento prickly poppy, New Mexico meadow jumping mouse, northern aplomado falcon, Kuenzler hedgehog cactus, yellow-billed cuckoo, and Mexican spotted owl.

There are no known cultural sites on the selected parcels.

Table 3.28
Existing Water Rights in AOI: FL – Otero

Exchange Parcel	Well Permit Number	Use Category	Status	Primary Use
L23	T03033	Not applicable	Permit	No user right or point of diversion
L23	T00388	Municipal	Application	City or county supplied water
L23	T 00387	Municipal	Application	City or county supply
L23	T 03825	Municipal	Permit	City of county supply
L23	T 05545	72-12-1	Permit	Sanitary in conjunction with a commercial use
L23	T 05585	72-12-1	Permit	Sanitary in conjunction with a commercial use
L23	T 01165	Irrigation	Declaration	Irrigation
L23	T 01443	72-12-1	Permit	Domestic one household
L34	T 06177	Monitoring Well	Permit	Monitoring (multiple points of diversion)
L11	T 04661	Exploration	Permit	Exploration

Source: BLM 2021d

Renewables

Potential for development—The AOI contains no parcels with predicted resource potential for development of wind energy classifications of “good” or better, and no parcels with wind turbine installations located within a 5-mile radius. However, there are 2,337 acres (63 percent of lands within the AOI) with a solar DNI of 7.5 or greater.

AOI: FL – UPPER SIERRA

General Overview

This AOI includes approximately 16,945 acres of BLM-administered lands proposed for exchange in Sierra County. The lands are located on seven parcels situated between Winston and Monticello in the northern portion of the county. Exchange parcels contained in this AOI are primarily characterized by Colorado plateau pinyon-juniper woodland landscape. AOI lands are undeveloped, although grazing is an existing land use that occurs throughout the vicinity of the AOI. The BLM Las Cruces DO administers all the lands proposed for exchange.

Access

Most parcels are accessible by vehicle on paved, dirt, or unimproved roads. These roads include Escondrio Road, Highway 52, Tortilla Flats Road, Hermosa Road, and several unnamed roads. The northeastern-most parcel in the AOI is only accessible by cross-country travel from adjacent state-administered lands.

Baseline Land Use Data

Minerals

Unknown use potential—No minerals are being developed on selected parcels within the AOI; there also are no areas of active use in the immediate region, including active oil or gas leases or mines, within 5 miles of parcels within the AOI.

ROW Development

Known use—There are existing or pending ROW authorizations on parcels selected for exchange (**Table 3.29**).

Table 3.29
Existing ROW Permits in AOI: FL – Upper Sierra

ROW Permit Number	Row Permit Name	ROW Category	Acres	Expiration Date
16515	Forest Service	Communication	4	N/A
52225	Western NM Telephone Co.	Communication	2	December 31, 2041
57037	Sierra County	Transmission	25	December 31, 2043
57058	El Paso Electric Co.	Transmission	35	December 31, 2049
57095	Sierra County	Roads	9	N/A
115662	Sierra County	Communication	4	December 31, 2035
134149	Sierra County	Transmission	11	December 31, 2035
137859	FHWA	Roads	8	N/A

Source: BLM 2021c

Note: excludes ROWs with less than one acre in AOI parcels and relinquished ROWs

N/A: not applicable, no expiration date

unknown: acres are not mapped in current GIS data and require site-specific verification to determine acres specific in exchange parcels

Livestock Grazing

High use—The AOI overlaps 16 grazing allotments with permitted AUMs. An estimated total of 3,347 AUMs are contained in the lands proposed for exchange (see **Table 3.30**, below).

Table 3.30
Livestock Grazing in AOI: FL – Upper Sierra

Allotment Number	Allotment Name	Public Acres before Exchange (%)	Acres on Exchange Parcels	Authorized BLM AUMs before Exchange	AUMs on Exchange Parcels
06061	Witch Well Allot	2,399 (39%)	1,720	412	300
06133	South Fork	160 (100%)	5	36	0
06138	74 Ranch	440 (100%)	310	168	120
16020	Monument Creek	1,778 (100%)	110	242	17
16033	Turkey Creek	2,843 (100%)	2,780	744	696
16034	Cuchillo Negro	575 (100%)	580	120	120
16116 ²	Cuchillo Negro Lease	310 (100%)	110	59	23
16040	Ladder Ranch	4,552 (100%)	1,240	852	277
16072	Double Arrow Ranch	6,014 (36%)	6,100	1,248	1,248
16075	Willow Spring Draw	4,465 (34%)	160	444	24
16078	Chiz Ranch	483 (100%)	450	144	144
16094	Rogue Ramos Canyon (Lanford)	2,499 (62%)	2,080	335	432 ¹
16094	Rogue Ramos Canyon (Luchini)	2,499 (62%)	-	45	N/A
16094	Rogue Ramos Canyon (Montoya)	2,499 (62%)	-	112	N/A
00138 ³	Iron Mountain	917 (100%)	-	-	-

Source: BLM 2021a

¹includes AUMs from Rogue Ramos Canyon Luchini, Montoya, and Lanford

²Allotment is not in BLM 2021a GIS data, acres based on case file estimate

³Allotment is primarily located in West Socorro AOI, see acreage and AUM details in West Socorro AOI description

Acres on exchange parcels are estimates rounded to the nearest 10. AUMs on exchange parcels are estimated based on BLM allotment level carrying capacity estimates.

Recreation

Unknown use potential—Dispersed recreation may occur in the AOI. Dispersed camping and hunting are permitted on the BLM-administered parcels. No state-designated recreation lands are in the vicinity of the AOI. The AOI is in New Mexico Game and Fish GMU 21B.

Water

Current use—Four active well permits and two expired well permits are present in the Upper Sierra AOI (**Table 3.31**).

Table 3.31
Existing Water Rights in AOI: FL – Upper Sierra

Exchange Parcel	Well Permit Number	Use Category	Status	Primary Use
L3	RG 48710	72-12-1	Permit	Livestock watering
L3	RG 28235	72-12-1	Permit	Livestock watering
L5	RG 26469	72-12-1	Permit	Domestic one household
L5	SD 03866	72-12-1	Declaration	Livestock watering
L3	RG 21210	72-12-1	Expired	Livestock watering
L5	RG 37373	72-12-1	Expired	Livestock watering

Source: BLM 2021d

Special Features

No data are available to confirm if specific species are present on the parcels proposed for exchange; however, Sierra County includes lands designated as suitable habitat for the following species: Mexican wolf, southwestern willow flycatcher, Rio Grande silvery minnow, Todsens's pennyroyal, northern aplomado falcon, Sprague's pipit, narrow-headed garter snake, Gila trout, Chiricahua leopard frog, Mexican spotted owl, and yellow-billed cuckoo.

One parcel in this AOI (parcel 3) extends over a considerable portion of the western portion of Sierra Cuchillo. Although the parcel has been subjected to very little previous cultural surveys over the years, existingsurveys indicate that a parcel has a high density for historic properties. The parcel contains several prehistoric habitation sites (i.e., pithouse villages) that are likely to contain human burials that are protected under the NAGPRA. In addition, there are a number of sites related to historic mining in the region, such as LA 67664, a historic mining site associated with the Invincible Mine. Additional inventory would likely identify a sizeable number of historic properties within the parcel.

The AOI also includes approximately 11,862 acres of a piñon nut gathering area (Cuchillo Mountains Piñon Nut Collection Area). Piñon nuts have been a cultural food staple for Indigenous and non-Indigenous New Mexicans over countless generations. However, the BLM has not gathered data as to how local populations or Indigenous communities use the Cuchillo Mountains Piñon Nut Collection Area.

Renewables

Potential for development—The AOI contains 366 acres with predicted resource potential for development of wind energy classifications of “good” or better, 6 acres of which are classified as “outstanding.” There are no parcels with wind turbine installations located within a 5-mile radius. There are 13,821 acres (82 percent of lands within the AOI) with a solar DNI of 7.5 or greater located within the AOI.

AOI: FL – MIDDLE SIERRA

General Overview

This AOI includes approximately 1,721 acres of BLM-administered lands proposed for exchange in Sierra County; the lands are located on nine parcels. Exchange parcels contained in this AOI are primarily composed of Chihuahuan creosote bush, mixed desert, and thorn scrub. AOI lands consist of undeveloped parcels located near the populated centers of Las Palomas and Truth or Consequences. Nearby land uses

include residential developments associated with these towns. The BLM Las Cruces DO administers all the lands proposed for exchange.

Access

All parcels are accessible by vehicle from paved roads, including US Highway 85/Interstate 25, Highway 181, Highway 187, and Alta Vista Road.

Baseline Land Use Data

Minerals

Unknown use potential—Parcels selected for exchange have no current leases or ongoing development; however, there are active mines present within 5 miles of parcels within the AOI.

ROW Development

Known use—There are existing or pending ROW authorizations on parcels selected for exchange (**Table 3.32**).

Table 3.32
Existing ROW Permits in AOI: FL – Middle Sierra

ROW Permit Number	Row Permit Name	ROW Category	Acres	Expiration Date
8472	NM State Highway Department	Roads	1	N/A
9914	Sierra Electric Corp.	Transmission	3	December 31, 2049
28548	Sierra Electric Corp.	Transmission	1	October 8, 2026
52960	NM State Highway Department	Roads	2	N/A
57037	Sierra County	Transmission	2	December 31, 2043
59244	Tri-State Generation and Transmission Association	Transmission	4	December 31, 2056

Source: BLM 2021c

Note: excludes ROWs with less than one acre in AOI parcels and relinquished ROWs

N/A: not applicable, no expiration date

unknown: acres are not mapped in current GIS data and require site-specific verification to determine acres specific in exchange parcels

Livestock Grazing

High use—The AOI overlaps five grazing allotments with permitted AUMs. An estimated total of 63 AUMs are contained in the lands proposed for exchange (see **Table 3.33**, below).

Table 3.33
Livestock Grazing in AOI: FL – Middle Sierra

Allotment Number	Allotment Name	Public Acres before Exchange (%)	Acres on Exchange Parcels	Authorized BLM AUMs before Exchange	AUMs on Exchange Parcels
06002	Alamosa	11,358 (97%)	80	1,044	13
06041	A Spear Ranch	14,439 (67%)	460	1,713	41
06141	Yaple Canyon	1,857 (100%)	80	67	7
16006	Apodoca Allotment	2,500 (100%)	460	408	3
16066	Racetrack Ranch	3,117 (70%)	20	252	0

Source: BLM 2021a

Acres on exchange parcels are estimates rounded to the nearest 10. AUMs on exchange parcels are estimated based on BLM allotment level carrying capacity estimates.

Recreation

Unknown use potential—Dispersed recreation may occur in the AOI. Dispersed camping and hunting are permitted on the BLM-administered parcels. Caballo Lake State Park is located just south of the AOI. The AOI is in New Mexico Game and Fish GMUs 21B and 20.

Water

Current Use—Three active well permits for domestic use and one monitoring well are present in the Middle Sierra AOI. In addition, there is one expired and one cancelled permit (**Table 3.34**).

Table 3.34
Existing Water Rights in AOI: FL-Middle Sierra

Exchange Parcel	Well Permit Number	Use Category	Status	Primary Use
L12	RG 17230	72-12-1	Permit	Domestic one household
L12	RG 84364	72-12-1	Expired	Domestic One Household
L13	RG 94009	Monitoring well	Permit	Monitoring
L13	RG 15438	72-12-1	Permit	Domestic one household
L16	HS 00522	Mining	Cancelled	Mining or Mining and Oil
L16	HS 00080	72-12-1	Permit	Domestic one household

Source: BLM 2021d

Special Features

No data are available to confirm if specific species are present on the parcels proposed for exchange; however, Sierra County includes lands designated as suitable habitat for the following species: Mexican wolf, southwestern willow flycatcher, Rio Grande silvery minnow, Todsens pennyroyal, northern aplomado falcon, Sprague's pipit, narrow-headed garter snake, Gila trout, Chiricahua leopard frog, Mexican spotted owl, and yellow-billed cuckoo.

There are no known cultural sites on the selected parcel.

Renewables

Potential for development—The AOI contains no parcels with predicted resource potential for development of wind energy classifications of “good” or better, and no parcels with wind turbine installations located within a 5-mile radius. However, there are 1,364 acres (79 percent of lands within the AOI) with a solar DNI of 7.5 or greater. A notable solar installation exists in the nearby Village of Williamsburg, which is a suburb of Truth or Consequences.

AOI: FL – LOWER SIERRA

General Overview

This AOI includes approximately 27,663 acres of BLM-administered lands proposed for exchange in Sierra County; the lands are located on 47 parcels. Exchange parcels contained in this AOI are composed primarily of semidesert grassland with some pinyon-juniper woodlands present. AOI lands are

undeveloped, although grazing is an existing land use that occurs throughout the vicinity of the AOI. The BLM Las Cruces DO administers all the lands proposed for exchange.

Access

Some parcels are accessible by vehicle from Highway 27, Sikes Draw Road, White Rock Road, and several unnamed roads. All parcels are adjacent to or partially adjacent to state-administered lands, and users may be permitted access.

Baseline Land Use Data

Minerals

Unknown use potential—No minerals are being developed on selected parcels within the AOI; there are no areas of active use in the immediate region, including active oil or gas leases or mines, within 5 miles of parcels within the AOI.

ROW Development

Known use—There are existing or pending ROW authorizations on parcels selected for exchange (**Table 3.35**).

Table 3.35
Existing ROW Permits in AOI: FL – Lower Sierra

ROW Permit Number	Row Permit Name	ROW Category	Acres	Expiration Date
52971	El Paso Electric Co.	Transmission	8	December 31, 2037
57037	Sierra County	Transmission	17	December 31, 2043
57058	El Paso Electric Co.	Transmission	36	December 31, 2049
104120	Caballo Water and Soil Conservation District	Irrigation	11	October 17, 2028

Source: BLM 2021c

Note: excludes ROWs with less than one acre in AOI parcels and relinquished ROWs

N/A: not applicable, no expiration date

unknown: acres are not mapped in current GIS data and require site-specific verification to determine acres specific in exchange parcels

Livestock Grazing

High use—The AOI overlaps 16 grazing allotments with permitted AUMs. An estimated total of 7,303 AUMs are contained in the lands proposed for exchange (see **Table 3.36**, below).

Table 3.36
Livestock Grazing in AOI: FL – Lower Sierra

Allotment Number	Allotment Name	Public Acres before Exchange (%)	Acres on Exchange Parcels	Authorized BLM AUMs before Exchange	AUMs on Exchange Parcels
03097 ¹	Beck Lease	1,718 (100%)	N/A	408	204
03059	Beck Land and Cattle Co.	2,370 (100%)	1,260	516	96
03098	China Draw Lease	1,401 (100%)	330	384	72
06000	Berrenda Creek	28,514 (56%)	1,200	2,675	240

Allotment Number	Allotment Name	Public Acres before Exchange (%)	Acres on Exchange Parcels	Authorized BLM AUMs before Exchange	AUMs on Exchange Parcels
06043	Nutt Mountain	7,100 (48%)	6,450	1,659	N/A
06123	Decker Draw Lease	692 (100%)	680	180	24
06124	Coyote Mountain Lease	990 (100%)	650	216	133
06128	Sherman Mountain	2,612 (100%)	70	696	24
06131	Oak Spring Lease	2,179 (100%)	780	442	173
06134	Lake Valley	1,591 (100%)	650	312	312
06136	Whiterock Mountain Lease	5,375 (100%)	4,780	1,596	1,344
16013	Macho Creek Lease	120 (100%)	80	24	12
16082	Double S	9,054 (36%)	9,030	2,196	2,184
16121	Macho Spring Lease	125 (100%)	70	36	12
22570	Jaralosa Creek	2,470 (32%)	150	300	12
24473	Montoya Arroyo	630 (100%)	150	132	26

Source: BLM 2021a

¹Allotment is not in the BLM 2021a GIS data. Acres based on case file acres

Acres on exchange parcels are estimates rounded to the nearest 10. AUMs on exchange parcels are estimated based on BLM allotment level carrying capacity estimates.

Recreation

Unknown use potential—Dispersed recreation may occur in the AOI. Dispersed camping and hunting are permitted on the BLM-administered parcels. No state-designated recreation lands are in the vicinity of the AOI. The AOI is in New Mexico Game and Fish GMUs 20, 24, 21A, and 21B.

Water

Current use—Five active well permits, associated with livestock grazing, are present in the Lower Sierra AOI (**Table 3.37**).

Special Features

No data are available to confirm if specific species are present on the parcels proposed for exchange; however, Sierra County includes lands designated as suitable habitat for the following species: Mexican wolf, southwestern willow flycatcher, Rio Grande silvery minnow, Todsens' pennyroyal, northern aplomado falcon, Sprague's pipit, narrow-headed garter snake, Gila trout, Chiricahua leopard frog, Mexican spotted owl, and yellow-billed cuckoo.

Table 3.37
Existing Water Rights in AOI: FL – Lower Sierra

Exchange Parcel	Well Permit Number	Use Category	Status	Primary Use
L58	LRG 04823	Non 72-12-1	Adjudicated	Livestock watering
L65	LWD 00020	Non 72-12-1	Declaration	Livestock watering
L65	LWD 00023	Non 72-12-1	Declaration	Livestock watering
L65	LWD 00024	Non 72-12-1	Declaration	Livestock watering
L65	LRG 04611	Irrigation	Adjudicated	Irrigation
L83	M 09728	72-12-1	Permit	Livestock watering

Source: BLM 2021d

The AOI also includes approximately 10 miles of a recognized cultural trail, the Cook’s Wagon Road/Southern Emigrant Trail. One parcel in the AOI (parcel 65) is known to contain prehistoric habitation sites, which likely contain human burials that are protected under the NAGPRA.

Renewables

Potential for development—The AOI contains 1,604 acres with predicted resource potential for development of wind energy classifications of “good” or better; 35 of these acres are classified as “outstanding.” Additionally, one wind turbine installation, Macho Springs, is located within a 5-mile radius of parcels within the AOI. There are also 26,518 acres (96 percent of lands within the AOI) with a solar DNI of 7.5 or greater located within the AOI.

AOI: FL – EAST SOCORRO

General Overview

This AOI includes approximately 2,037 acres of BLM-administered lands proposed for exchange in Socorro County; the lands are located on 10 parcels. Exchange parcels contained in this AOI are primarily composed of semidesert and intermountain basins grassland and steppe terrain. AOI lands are undeveloped, although grazing is an existing land use that occurs throughout the vicinity of the AOI. Nearby lands include residential uses. The BLM Socorro FO administers all the lands proposed for exchange.

Access

Vehicle access is provided via unmaintained, natural surface roadways that traverse parcels within the AOI. Parcels are located adjacent to state and private lands, and users may be permitted access.

Baseline Land Use Data

Minerals

Unknown use potential—No minerals are being developed on selected parcels within the AOI; there also are no areas of active use in the immediate region, including active oil or gas leases or mines, within 5 miles of parcels within the AOI.

ROW Development

Not a current land use—There are no existing authorizations on parcels selected for exchange; restrictions on ROWs may apply.

Livestock Grazing

Medium use—The AOI overlaps two grazing allotments with permitted AUMs. An estimated 399 AUMs are contained in the lands proposed for exchange (see **Table 3.38**, below).

Table 3.38
Livestock Grazing in AOI: FL – East Socorro

Allotment Number	Allotment Name	Public Acres before Exchange (%)	Authorized BLM AUMs before Exchange	AUMs on Exchange Parcels
01271	Mesa Redonda	9,207 (50%)	1,704	274
01340	Twin Tanks	800 (100%)	156	125

Source: BLM 2021a

Acres on exchange parcels are estimates rounded to the nearest 10. AUMs on exchange parcels are estimated based on BLM allotment level carrying capacity estimates.

Recreation

Unknown use potential—Dispersed recreation may occur in the AOI. Dispersed camping and hunting are permitted on the BLM-administered parcels. No state-designated recreation lands are in the vicinity of the AOI. The AOI is in New Mexico Game and Fish GMU 18.

Water

No known use—There are no existing water rights located in the East Socorro AOI.

Special Features

No data are available to confirm if specific species are present on the parcels proposed for exchange; however, Socorro County includes lands designated as suitable habitat for the following species: Alamosa springsnail, Chupadera springsnail, southwestern willow flycatcher, Socorro springsnail, Socorro isopod, New Mexico meadow jumping mouse, Rio Grande silvery minnow, northern aplomado falcon, Pecos sunflower, piping plover, Chiricahua leopard frog, Mexican spotted owl, and yellow-billed cuckoo.

There are no known cultural sites on the selected parcel.

Renewables

Potential for development—The AOI contains no parcels with predicted resource potential for development of wind energy classifications of “good” or better, and no parcels with wind turbine installations located within a 5-mile radius. However, there are 2,037 acres (100 percent of lands within the AOI) with a solar DNI of 7.5 or greater.

AOI: FL – WEST SOCORRO

General Overview

This AOI includes approximately 18,029 acres of BLM-administered lands proposed for exchange in Socorro County; the lands are located on 45 parcels. Exchange parcels contained in this AOI are primarily composed of semidesert grassland with some notable amount of pinyon-juniper woodland. AOI lands are undeveloped, although grazing is an existing land use that occurs throughout the vicinity of the AOI. Nearby lands include those administered by the US Forest Service. The BLM Socorro FO administers all the lands proposed for exchange.

Access

Roads pass through many of the parcels in the AOI and provide vehicular access. Access roads include Lost Springs Road, Agua Road, Dry Lake Canyon Road, Highway 60, Highway 52, and several unnamed roads. Most parcels in the AOI are adjacent to other BLM- and state-administered lands, and users may be permitted access.

Baseline Land Use Data

Minerals

Unknown use potential—Parcels selected for exchange have no current leases or ongoing development; however, there are active mines present within 5 miles of parcels within the AOI.

ROW Development

Known use—There are existing or pending ROW authorizations on parcels selected for exchange (**Table 3.39**).

Table 3.39
Existing ROW Permits in AOI: FL – West Socorro

ROW Permit Number	Row Permit Name	ROW Category	Acres	Expiration Date
2315	El Paso Electric Co.	Transmission	5	December 31, 2047
35199	NM State Highway Department	Roads	3	N/A
40710	Qwest Corp.	Communication	2	December 31, 2040
45791	Western NM Telephone Co.	Communication	17	December 31, 2041
52194	Socorro County	Roads	4	N/A
52225	Western NM Telephone Co.	Communication	6	December 31, 2041
59368	NM State Highway Department	Roads	2	N/A
82565	Socorro County	Roads	3	N/A
82589	Socorro County	Roads	2	N/A
82591	Socorro County	Roads	2	N/A
82595	Socorro County	Roads	9	N/A
82596	Socorro County	Roads	3	N/A
82599	Socorro County	Roads	2	N/A
94739	Western NM Telephone Co.	Communication	2	N/A
82596	AT&T GRE Lease Administration	Communication	5	December 4, 2013

Source: BLM 2021c

Note: excludes ROWs with less than one acre in AOI parcels and relinquished ROWs

N/A: not applicable, no expiration date

unknown: acres are not mapped in current GIS data and require site-specific verification to determine acres specific in exchange parcels

Livestock Grazing

High use—The AOI overlaps 13 grazing allotments with permitted AUMs. An estimated total of 2,966 AUMs are contained in the lands proposed for exchange (see **Table 3.40**, below).

Table 3.40
Livestock Grazing in AOI: FL – West Socorro

Allotment Number	Allotment Name	Public Acres before Exchange (%)	Acres on Exchange Parcels	Authorized BLM AUMs before Exchange	AUMs on Exchange Parcels
00089	S La Jencia Ranch	4,560 (100%)	4,560	564	564
00136	Silver Creek	623 (100%)	620	1,284	87
00138	Iron Mountain	917 (100%)	930	132	132
01107	Bear Springs	31 (100%)	30	4	4
01117	Canon Bonito	3,117 (100%)	3,120	413	413
01294	Hickman Ranch	9,361 (48%)	30	936	4

Allotment Number	Allotment Name	Public Acres before Exchange (%)	Acres on Exchange Parcels	Authorized BLM AUMs before Exchange	AUMs on Exchange Parcels
01296	Antelope West	1,996 (100%)	300	247	38
01324	Water Canyon	1,430 (13%)	1,260	240	220
01344	La Jencia Ranch	1,092 (100%)	N/A	132	12
01345	Oso Flats	425 (100%)	410	96	96
01351	Reinhardt	1,500 (100%)	1,000	216	142
10124	Hale Well	40 (100%)	40	6	6

Source: BLM 2021a

Acres on exchange parcels are estimates rounded to the nearest 10. AUMs on exchange parcels are estimated based on BLM allotment level carrying capacity estimates.

Recreation

Unknown use potential—Dispersed recreation may occur in the AOI. Dispersed camping and hunting are permitted on the BLM-administered parcels. No state-designated recreation lands are in the vicinity of the AOI. The AOI is in New Mexico Game and Fish GMUs 13, 17, and 21B.

Water

Current use—One active well permit, associated with domestic use is present in the AOI (**Table 3.41**).

Table 3.41
Existing Water Rights in AOI: FL – West Socorro

Exchange Parcel	Well Permit Number	Use Category	Status	Primary Use
S38	RG 85783	72-12-1	Permit	Domestic one household

Source: BLM 2021d

Special Features

No data are available to confirm if specific species are present on the parcels proposed for exchange; however, Socorro County includes lands designated as suitable habitat for the following species: Alamosa springsnail, Chupadera springsnail, southwestern willow flycatcher, Socorro springsnail, Socorro isopod, New Mexico meadow jumping mouse, Rio Grande silvery minnow, northern aplomado falcon, Pecos sunflower, piping plover, Chiricahua leopard frog, Mexican spotted owl, and yellow-billed cuckoo.

There are no known cultural sites on the selected parcel.

Renewables

No known potential—The AOI contains no parcels with predicted resource potential for development of wind energy classifications of “good” or better, and no parcels with wind turbine installations located within a 5-mile radius. There are 1,475 acres (8 percent of lands within the AOI) with a solar DNI of 7.5 or greater.

3.3.2 SLO Lands

AOI: STL – NORTH DOÑA ANA

General Overview

This AOI includes approximately 54,487 acres of State of New Mexico lands proposed for exchange in Doña Ana County; the lands are located on 75 parcels. Exchange parcels contained in this AOI are primarily characterized by a mixed desert and scrub landscape. This area is within the Sierra de Las Uvas Mountains in and bordering the Organ Mountains-Desert Peaks National Monument. AOI lands are undeveloped with no evident land uses with the exception of grazing and ROWs.

Access

Some parcels in the AOI are directly accessible from various county roads, North Baylor Canyon Road, and Dripping Springs Road. Parcels not accessible by vehicle are accessible overland from adjacent BLM-administered lands or state-administered lands.

Baseline Land Use Data

Minerals

Unknown use potential—Parcels selected for exchange have no current leases or ongoing development; however, there are active mines present within 5 miles of parcels within the AOI. Gas shows have been reported in Doña Ana County, though commercial production has never been established. There are favorable source and reservoir rocks in the Cretaceous and Paleozoic that could support gas production. The closest active oil and gas lease and active wells are approximately to the east in southern Otero County (SLO 2021 d).

ROW Development

Known use—There are existing authorizations on parcels selected for exchange; categories of use include roads, communication locations, transmission lines, pipelines, and other uses (**Table 3.42**).

Table 3.42
Existing ROW Permits in AOI: STL – North Doña Ana

ROW Permit Number(s)	Row Permit Name	ROW Category	Expiration Date
R228360000	AT&T Corporation	Communication	February 11, 2021
R154000000	El Paso Electric Co.	Transmission	N/A
R156260000			
R156810000			
R167300000			
R180130000			
R181790000			
R252420000	El Paso Electric Co.	Transmission	May 3, 2029
R167930000	Elephant Butte Irrigation District	Other	N/A
R167940000			
R171840000			
R171850000			
R172430000			
R172720000			
R246990000	Federal Aviation Administration	Other	November 5, 2027

ROW Permit Number(s)	Row Permit Name	ROW Category	Expiration Date
R154300000	Mountain States Telephone & Telegraph Co.	Communication	February 2, 2023
R146250000 R199790000	NM State Highway Department	Roads	N/A
M074230000	Plains Pipeline LP	Pipeline	N/A
M020700000	Tri-State Generation and Transmission Association	Transmission	N/A
R258690000	US West Communications	Communication	April 21, 2031
R304280000	Katerina Inc.	Other	February 16, 2042
R369870000	Moongate Water	Water Facilities	May 15, 2054
R259180000	Zaida Abraham and Geraldine January	Other	January 16, 2023

Source: BLM 2021c; SLO 2021

Note: Acres are rounded to the nearest acre. ROWs with less than 1 acre included in the AOI are excluded.

N/A = lease has no expiration date.

Livestock Grazing

High use—The AOI overlaps 16 grazing allotments with permitted AUMs. An estimated total of 48,703 acres with active grazing allotments are contained in the lands proposed for exchange with 45,421-6,821 AUMs (see **Table 3.43**, below).

Table 3.43
Livestock Grazing in AOI: STL – North Doña Ana

Allotment Number	Allotment Name	SLO Acres for Exchange	Estimated SLO AUMs for Exchange ¹	State Grazing Lease Eliminated after Transfer (Yes/No)	Estimated SLO Current Annual Rent on Exchange Parcels ²
03007	Rock Canyon	629	35–60	Yes	\$176
03010	Souse Spring	117	13–22	No	\$103
03011	Loco	1,281	168–204	Yes	\$833
03012	Sierra Alta	350	39–72	No	\$196
03015	Alamo Basin	3,519	517–585	Yes	\$1,847
03025	Broad Canyon	1,967	198–238	Yes	\$1,141
03026	Horse Canyon	57	0–4	Yes	\$19
03027	Bignell Arroyo	568	43–76	Yes	\$210
03031	Las Uvas Mountains	3,476	603–633	No	\$4,623
03032	Saddle Mountain	5,480	762–964	No	\$5,042
03040	Altamira	970	48–146	Yes	\$718 ³
03047	Indian Springs	2,298	141–278	Yes	\$1,333
15007	Doña Ana Mountains	1,279	N/A	No	\$1,394
15002	Dripping Springs	1,288	67	No	N/A
15006	Rose Well	240	36	No	N/A
03008	Picacho Peak	1,253	40	No	\$702
03009	Lazy E	8,344	1,104–1,565	No	\$7,677
03013	Corralitos Ranch	21,307	2,405–2,297	No	\$12,784

Source: BLM 2021a; SLO 2021f

N/A = data not available

¹ Estimated SLO AUMs for exchange based on BLM 2021a and SLO 2021a. As detailed in Section 4.1, Methods, discrepancies are present in estimates of AUMs based on differences in AUM calculation methods used by the BLM and SLO. The range of data represents AUM estimates from BLM and SLO estimates.

² Estimated current annual rent is based on SLO dollar per acre calculations. Calculations use the per acre grazing rate average for the SLO grazing lease that is dominant within each BLM allotment. Estimated acres in the exchange are multiplied by this rate to determine the average annual grazing fee. In instances where more than one SLO lease is prevalent in a BLM allotment, the per acre rates are averaged.

³ The additional value for irrigated land parcels is not included in this estimate.

Recreation

Unknown use potential—Dispersed recreation may occur in the AOI. Dispersed camping and hunting are permitted on the BLM-administered parcels. No state-designated recreation lands are in the vicinity of the AOI. The AOI is in New Mexico Game and Fish GMUs 19, 20, and 21B.

Water

As defined by the Office of the State Engineer, the northern MEA covers four basins, including the Tularosa Valley, Joranda Draw, El Paso-Las Cruces, and Mimbres basins; these are in the Rio Grande closed basins and the Rio Grande Mimbres subregions. The Rio Grande is bordering some areas of the northern MEA. The eastern and southernmost sections of the area are in the Mesilla Valley Critical Water Management Area, as defined by the Office of the State Engineer, which has strict guidelines for development. Water quality measurements of area wells indicate total dissolved solid levels of approximately 400 milligrams per liter (mg/L) (2006) and 1,500 mg/L (1989). For reference, the Environmental Protection Agency suggests a total dissolved solid level of 500 mg/L (higher values are not harmful, but the taste can be noticeable).

Current use—There are 28 known water diversion points, with primary uses including livestock watering domestic use, and one storage permit held by the Elephant Butte Irrigation District (see **Table 3.44**).

Table 3.44
Existing Water Rights in AOI: STL – North Doña Ana

Well Permit Number	Use Category	Status	Primary Use	SLO Water Right Owner
LRG 17153-1	Non 72-12-1 Livestock	Adjudicated	Livestock watering	No
LRG 3576	72-21-1 Livestock	Declaration	Livestock watering	No
LRG 4050	Mutual Domestic Water Association	Licensed	Mutual Domestic Water Association	No
LRG 04750	Irrigation	Closed	Irrigation	No
LRG 5377	72-12-1 Livestock	Declaration	Livestock watering	No
LRG 8176	72-12-1	Permit	Construction of Public Works	No
LRG 9297	72-12-1 Livestock	Expired	Livestock watering	No
LRG 10133	72-12-1 Livestock	Expired	Livestock watering	Yes
LRG 10134	72-12-1 Livestock	Expired	Livestock watering	Yes
LRG 10135	72-12-1 Livestock	Expired	Livestock watering	Yes
LRG 10136	72-12-1 Livestock	Expired	Livestock watering	Yes
LRG 10138	72-12-1 Livestock	Declaration	Livestock watering	Yes
M 96	Irrigation	Adjudicated	Irrigation	No
M 5256	72-12-1	Expired	Livestock watering	No
M 5256	72-12-1	Expired	Livestock watering	No
M 6008	72-12-1	Declaration	Livestock watering	No

Well Permit Number	Use Category	Status	Primary Use	SLO Water Right Owner
M 6012	72-12-1	Declaration	Livestock watering	No
M 6014	72-12-1	Declaration	Livestock watering	No
M 10433	72-12-1	Permit	Livestock watering	No
M 10495-1	Exploration	Permit	Exploration	No
M 11644-1	Non 72-12-1 Domestic	Notice of Intention	Domestic	No
M 11644-2	Non 72-12-1 Domestic	Notice of Intention	Domestic	No
M 11644-3	Non 72-12-1 Domestic	Notice of Intention	Domestic	No
M 11644-4	Non 72-12-1 Domestic	Notice of Intention	Domestic	No
RG 38704	72-12-1 Domestic	Permit	Domestic – one household	No
SD 2978	72-12-1 Livestock	Change	Livestock watering	No
SD 2979	72-12-1 Livestock	Change	Livestock watering	No
SP 3231	Storage	Permit	Storage	No

Source: SLO 2021a

Special Features

No data are available to confirm if specific species are present on the parcels proposed for exchange; however, Doña Ana County includes lands designated as suitable habitat for the following species: southwestern willow flycatcher, Sneed's pincushion cactus, northern aplomado falcon, and yellow-billed cuckoo.

There are no known cultural sites on the selected parcel.

Renewables

Potential for development—The AOI contains 450 acres with predicted resource potential for development of wind energy classifications of “good” or better, 1 acre of which is classified as “outstanding.” No parcels are located within a 5-mile radius of wind turbine installations. There are 54,487 acres (100 percent of lands within the AOI) with a solar DNI of 7.5 or greater located within the AOI.

AOI: STL – SOUTH DOÑA ANA

General Overview

This AOI includes approximately 27,412 acres of State of New Mexico lands proposed for exchange in Doña Ana County; the lands are located on 55 parcels. Exchange parcels contained in this AOI are primarily characterized by a mixed desert and scrub landscape located in the Potrillo Mountains in or bordering the Organ National Monument. AOI lands are undeveloped with no evident land uses.

Access

While some parcels in the AOI are directly accessible from county roads, Kingman Street, and Rail Spike Road, most other parcels are accessible by cross-country travel from adjacent BLM-administered or state-administered parcels.

Baseline Land Use Data

Minerals

Unknown use potential—Parcels selected for exchange have no current leases or ongoing development; however, there are active mines present within 5 miles of parcels within the AOI. The majority of the AOI is located within the Aden industrial minerals mining district, however, there are no currently active SLO industrial mineral leases in this district (SLO 2021 d).

ROW Development

Known Use—There are existing authorizations on parcels selected for exchange (**Table 3.45**).

Table 3.45
Existing ROW Permits in AOI: STL – South Doña Ana

ROW Permit Number	Row Permit Name	ROW Category	Expiration Date
R228350000	AT&T Corporation	Communication	February 11, 2021
R229210000	El Paso Electric Co.	Transmission	February 27, 2021
R271090000	Williams Communications Inc.	Communication	November 13, 2020

Source: BLM 2021c; SLO 2021

Note: Acres are rounded to the nearest acre. ROWs with less than 1 acre included in the AOI are excluded.

Livestock Grazing

High use—The AOI overlaps nine grazing allotments with permitted AUMs. An estimated total of 33,770 acres with active grazing allotments and 2,624 to 3,627 AUMs are contained in the lands proposed for exchange (see **Table 3.46**, below).

Recreation

Unknown use potential—Dispersed recreation may occur in the AOI. Dispersed camping and hunting are permitted on the BLM-administered parcels. No state-designated recreation lands are in the vicinity of the AOI. The AOI is in New Mexico Game and Fish GMUs 19 and 25.

Water

Current use—There are five known points of diversion in the South Doña Ana AOI; only one of these represents a currently active water right based on Office of the State Engineer data (**Table 3.47**).

Special Features

No data are available to confirm if specific species are present on the parcels proposed for exchange; however, Doña Ana County includes lands designated as suitable habitat for the following species: southwestern willow flycatcher, Sneed's pincushion cactus, northern aplomado falcon, and yellow-billed cuckoo.

There are no known cultural sites on the selected parcel.

Table 3.46
Livestock Grazing in AOI: STL – South Doña Ana

BLM Allotment Number	BLM Allotment Name	Estimated SLO Acres for Exchange	Estimated SLO AUMs for Exchange ¹	State Grazing Lease Eliminated in Allotment after Transfer (Yes/No)	Annual Rent ²
03039	Potrillo Ranch	3,758	324–426	No	\$1,729
03056	Afton	3,375	229–409	No	\$1,991
03016	POL East ³	5,759	49–608	No	\$2,994
03002	Home Ranch	84	0–10	No	\$50
03022	La Union	54	0–0	No	N/A
03023	Kilbourne Hole	5,892	79–372	No	\$2,040
03029	West Potrillo	8,575	759-806	No	\$3,403
15001	Chaparral	793	38–119	No	\$587

Source: BLM 2021a; SLO 2021f

N/A = data not available

¹ The estimated SLO AUMs for exchange are based on BLM 2021a and SLO 2021a. As detailed in Section 4.1, Methods, discrepancies are present in estimates of AUMs based on differences in AUM calculation methods used by the BLM and SLO. The range of data represents AUM estimates from BLM and SLO estimates.

² Estimated current annual rent is based on SLO dollar per acre calculations. Calculations use the per acre grazing rate average for the SLO grazing lease that is dominant within each BLM allotment. Estimated acres in the exchange are multiplied by this rate to determine the average annual grazing fee. In instances where more than one SLO lease is prevalent in a BLM allotment, the per acre rates are averaged.

³ Includes total SOL acres and AUMs for POL East, which overlaps the Luna and South Doña Ana AOI

Table 3.47
Existing Water Rights in AOI: STL – South Doña Ana

Well Permit Number	Use Category	Status	Primary Use	SLO Water Right Owner
LRG 1889-1	Closed File	Closed File	Livestock	Yes
LRG 3232	7-12-1	Declaration	Livestock	No
LRG 5432-1	Closed File	Closed File	Livestock	Co-owner
LRG 5433-1	Closed File	Closed File	Livestock	Co-owner
MR-2	7-12-1	Expired	Livestock	Co-owner

Source: SLO 2021a

Renewables

Potential for development—The AOI contains 95 acres with predicted resource potential for development of wind energy classifications of “good” or better. No parcels are located within a 5-mile radius of wind turbine installations. There are 27,412 acres (100 percent of lands within the AOI) with a solar DNI of 7.5 or greater located within the AOI.

AOI: STL – HIDALGO

General Overview

This AOI includes approximately 1,280 acres of State of New Mexico lands proposed for exchange in Hidalgo County; the lands are located on two parcels. Exchange parcels contained in this AOI are primarily characterized by a semidesert grassland and steppe landscape. The majority of this AOI is classified as barren landscape; it is located on a playa with fragile soils prone to dust storms.

Access

One parcel is directly accessible from US Highway 10. The other parcel is accessible via cross-country travel across adjacent BLM-administered lands.

Baseline Land Use Data

Minerals

Unknown use potential—No minerals are being developed on the selected parcels within the AOI. There are no areas of active use in the immediate region, including active oil or gas leases or mines, within 5 miles of parcels within the AOI. However, the two potential exchange parcels on the Lordsburg Playa in Hidalgo County were nominated in 2017 for a mineral lease sale for the purpose of lithium exploration but the nominations were not approved due to a dust concern on the playa (SLO 2021d). The AOI is within the Hidalgo County MEA in the Pedragosa Basin. Oil and gas has been found in this basin, though there has not been any commercial production (SLO 2021d).

ROW Development

Known use—There are existing or pending ROW authorizations on parcels selected for exchange. Uses include communication locations, power transmission lines, roads, and pipelines (**Table 3.48**).

Table 3.48
Existing ROW Permits in AOI: STL – Hidalgo

ROW Permit Number	Row Permit Name	ROW Category	Expiration Date
M021540000	AT&T Corporation	Communication	N/A
R272070000	AT&T Corporation	Communication	November 4, 2026
R229510000	Columbus Electric Coop Inc.	Transmission	February 3, 2022
M028240000 R143740000 R196640000	NM State Highway Department	Roads	N/A
R168050000	Southern Pacific Pipelines LP	Pipeline	N/A
R230620000	US Sprint Communications Co.	Communication	October 10, 2021
R286340000	Western NM Telephone Co.	Communication	March 16, 2039
R271090000	Williams Communications Inc.	Communication	October 13, 2020

Source: BLM 2021c; SLO 2021a

N/A = lease has no expiration date

Livestock Grazing

Low use—The AOI overlaps two grazing allotments with permitted AUMs. An estimated total of 72 AUMs are contained in the lands proposed for exchange (see **Table 3.49**, below).

Table 3.49
Livestock Grazing in AOI: STL – Hidalgo¹

Allotment Number	Allotment Name	SLO Acres for Exchange	Estimated SLO AUMs for Exchange ¹	State Grazing Lease Eliminated in Allotment after Transfer (Yes/No)	Annual Rent
1068	Playa	1,140	72	No	\$843
1079	Mondel Flats	140	0	No	\$103

Source: BLM 2021a

¹ Estimates provided based on BLM data

Recreation

Unknown use potential—Dispersed recreation may occur in the AOI. Dispersed camping and hunting are permitted on the BLM-administered parcels. No state-designated recreation lands are in the vicinity of the AOI. The AOI is in New Mexico Game and Fish GMU 27.

Water

No known use—There are no existing active water rights in the Hidalgo AOI.

Special Features

No data are available to confirm if specific species are present on the parcels proposed for exchange; however, Hidalgo County includes lands designated as suitable habitat for the following species: Yaqui chub, Yaqui catfish, Huachuca water-umbel, Cochise pincushion cactus, Chiricahua leopard frog, Mexican long-nosed bat, lesser long-nosed bat, northern Mexican garter snake, loach minnow, northern aplomado falcon, New Mexican ridge-nosed rattlesnake, Mexican spotted owl, southwestern willow flycatcher, spikedeace, Mexican wolf, narrow-headed garter snake, and yellow-billed Cuckoo.

There are no known cultural sites on the selected parcel.

Renewables

No known potential—The AOI contains no areas with predicted resource potential for development of wind energy classifications of “good” or better. No parcels are located within a 5-mile radius of wind turbine installations, and no parcels within the AOI contain acres with a solar DNI of 7.5 or greater.

AOI: STL – LUNA

General Overview

This AOI includes approximately 1,975 acres of State of New Mexico lands proposed for exchange in Luna County; the lands are located on four parcels. Exchange parcels contained in this AOI are primarily characterized by a mixed desert and scrub landscape. Luna County Area is located in the Potrillo Mountains section of the National Monument. AOI lands are undeveloped with no evident land uses.

Access

The four parcels in this AOI appear to be accessible by unnamed two-track roads; the maintenance status of these roads is unknown. Parcels can also be accessed by cross-country travel from adjacent BLM-administered lands.

Baseline Land Use Data

Minerals

Unknown use potential—No minerals are being developed on selected parcels within the AOI. There are no areas of active use in the immediate region, including active oil or gas leases or mines, within 5 miles of parcels within the AOI. The AOI overlaps the Aden industrial minerals mining district; however, there are no currently active SLO industrial mineral leases in this district.

ROW Development

Not a current land use—There are no existing authorizations on parcels selected for exchange; restrictions on ROWs may apply.

Livestock Grazing

Low use—The AOI overlaps one grazing allotment with permitted AUMs. There is an estimated total of 5,749 acres with active grazing allotments and 49 to 608 AUMs contained in the lands proposed for exchange (see **Table 3.50**, below).

Table 3.50
Livestock Grazing in AOI: STL – Luna

Allotment Number	Allotment Name	SLO Acres for Exchange	Estimated AUMs for Exchange ¹	State Grazing Lease Eliminated within Allotment Boundaries after Transfer (Yes/No)	Annual Rent ²
03016	POL East ³	5,749	49–608	No	\$2,995

Source: BLM 2021a; SLO 2021f

¹ The estimated SLO AUMs for exchange are based on BLM 2021a and SLO 2021a. As detailed in Section 4.1, Methods, discrepancies are present in estimates of AUMs based on differences in AUM calculation methods used by the BLM and SLO. The range of data represents AUM estimates from BLM and SLO estimates.

² The estimated current annual rent is based on SLO dollar per acre calculations. Calculations use the per acre grazing rate average for the SLO grazing lease that is dominant within each BLM allotment. Estimated acres in the exchange are multiplied by this rate to determine the average annual grazing fee. In instances where more than one SLO lease is prevalent in a BLM allotment, the per acre rates are averaged.

³ Includes the total SOL acres and AUMs for POL East, which overlaps the Luna and South Doña Ana AOI

Recreation

Unknown use potential—Dispersed recreation may occur in the AOI. Dispersed camping and hunting are permitted on the BLM-administered parcels. No state-designated recreation lands are in the vicinity of the AOI. The AOI is in New Mexico Game and Fish GMUs 25 and 21B.

Water

No known use—There are no existing water rights in the Luna AOI.

Special Features

No data are available to confirm if specific species are present on the parcels proposed for exchange; however, Luna County includes lands designated as suitable habitat for the following species: northern aplomado falcon, yellow-billed cuckoo, Chiricahua leopard frog, and beautiful shiner.

There are no known cultural sites on the selected parcel.

Renewables

Potential for development—The AOI contains no areas with predicted resource potential for development of wind energy classifications of “good” or better. No parcels are located within a 5-mile radius of wind turbine installations; however, the AOI contains 1,975 acres (100 percent of lands within the AOI) with a solar DNI of 7.5 or greater.

Chapter 4. Impacts Analysis Overview

4.1 METHODS

The methods of analysis are provided below for each of the current land uses/user types identified. All analyses are based on an examination of all BLM and SLO exchange lands, as defined in **Chapter 3, Current Land Uses**. For the purpose of these analyses, it is assumed that all identified lands in this report are included in the final exchange. However, the BLM and SLO may adjust acres included in the exchange prior to finalization, based on information about resources determined in ongoing reports, site-specific assessment of parcels, and other factors. As a result, actual changes to acres, revenue, AUMs, and other quantitative values would vary depending on the final parcels included in the exchange, and appraisal of these parcels.

4.1.1 Minerals

Information on existing mineral leases and active wells within 5 miles of parcels and the associated economic impacts are provided, as available. Impacts on potential future development are examined based on available data, including existing fluid mineral leasing in the AOI, locations of active mineral development, and fluid mineral potential information available for portions of the analysis area. A further environmental analysis, to be completed prior to finalization of the land exchange, will incorporate findings from the BLM mineral potential report, which is under preparation.

4.1.2 Livestock Grazing

Anticipated changes in the permit/lease cost are detailed for each AOI, based on the level of authorized and billed AUMs in BLM-administered parcels selected for potential exchange and the total acres selected for exchange. The analysis of changes to grazing fees is based on the 2021 federal grazing fee of \$1.35/AUM (BLM 2021 e) and the 2021 SLO grazing fee, estimated at \$4.85/AUM (SLO 2021 b).

It should be noted that AUM estimates provided by the SLO and the BLM vary based on differences in approach. Most grazing allotments managed by the BLM New Mexico include private lands, state lands, and BLM-administered lands. The BLM New Mexico determines the carrying capacity of all lands (including private and state lands) within a grazing allotment where the allotment is managed under Section 3 of the Taylor Grazing Act. A grazing permit is then issued for the carrying capacity of the entire allotment. Although the permit is issued for the entire allotment, the BLM can only bill for AUMs produced on BLM-administered lands. Therefore, the grazing permit includes the “percent public land,” which allows for the establishment of the carrying capacity on the entire allotment, even though the BLM only bills for AUMs produced on BLM-administered lands. For SLO lands, the SLO independently develops carrying capacity estimates. It uses grazing capacity as part of a formula to determine the annual rental for the lease.

The analysis assumes the BLM and SLO grazing fees are maintained at current levels and that livestock grazing remains economically feasible for land selected for exchange. The quantitative analysis is also based on the assumption that the current level of carrying capacity would be maintained in SLO-administered permits.

4.1.3 ROW Development

ROW development is examined based on the location of existing ROW authorizations and active leases.

4.1.4 Recreation

The level of impacts on recreation is discussed qualitatively, based on the level of current use, as defined in the AOI discussions. The analysis assumes that access for hunting would be maintained, in accordance with the 2021 easement agreement between the New Mexico State Game Commission and SLO (State of New Mexico 2021). Access for other recreational uses is assumed to be limited on STLs. Recreational users of STLs must have a recreational access permit obtained from the SLO.

4.1.5 Forest and Woodland Products

As described in **Chapter 3**, information was obtained from the BLM's fuelwood viewer database (BLM 2021b), which indicated that no designated fuelwood harvesting areas overlap with any of the parcels identified for exchange. Although limited fuelwood harvest may occur throughout the socioeconomic study area, depending on dominant vegetation types and access restrictions from surrounding private lands, it is not a notable current land use occurring within any of the AOIs. There are no current SLO wood products, leases, or fuelwood gathering areas included in the exchange. This topic was therefore not carried forward for detailed analysis.

4.1.6 Water

Existing improved water rights are noted for each AOI, as applicable. Impacts are based on assumptions provided by agreements set forth between the SLO and BLM related to transferring existing water usage for lessees.

4.1.7 Special Features

Impacts on special features are discussed on a qualitative basis, including the potential for impacts on nonmarket values, as based on special features identified in **Chapter 3**, Current Land Uses.

4.1.8 Renewables

While the specific revenue and potential tax contributions from renewable energy development on exchange lands cannot be estimated based on available information, the potential for renewable energy development is discussed. The potential for wind energy development was examined based on average wind speed data, as mapped by the National Renewable Energy Laboratory. The potential for solar energy development was determined by examining the solar energy direct normal irradiance (DNI) for each AOI parcel grouping. AOIs were compared in terms of the number of acres with a DNI of 7.5 or greater. The SLO also considered the proximity to existing or planned high-voltage electric-transmission lines and substations as part of its rationale for solar- and wind-power-related tract selection.

4.2 NATURE AND TYPE OF IMPACTS

General anticipated changes to the level of access and the nature and type of impacts anticipated for each identified user group/use are summarized below. Impacts by AOI are discussed under **Chapter 7**, Parcel-Level Impacts Discussion.

4.2.1 Minerals

The selected land has known mineral materials, a plan of operations for locatable minerals, and mining claims. However, revenue collected from development of these resources is minimal. Negligible direct impacts would occur on administrative requirements or revenue currently collected or distributed to the state or counties. Transferring mineral rights from the BLM to the SLO would, however, affect the

required procedures and collection and distribution of mineral royalties, rents, and bonuses for any future mineral development. A summary of differences in policy regarding mineral development on BLM- and STLs is provided in **Table 4.1**, below.

Table 4.1
Agency Comparison of SLO and BLM Mineral Management

	SLO	BLM
Fluid Minerals		
Leasing process	Leases for competitive bidding are for a 5-year term. After the primary term (5 years), leases are held as long as there is production, along with other conditions (depending on the year the lease was issued). However, a lease must, generally, comply with other state rules, including having a bond, paying an annual rental, environmental requirements, etc. Leases in nonrestricted districts may be for 10 years (or 5 years). Those leases also must comply with requirements; see 19-10-4.1 New Mexico Statutes and 19-10-7 New Mexico Statutes regarding exploratory leases for nonrestricted leases.	Competitive leases issued for terms of 5 years. Non-competitive leases issued for lands previously offered competitively for which no bid was received. Leases can be held by production and payment of lease fees.
Regulations	Drilling and production regulated by the New Mexico Oil Conservation Division.	Drilling and production regulated by the BLM as stated in the Mineral Leasing Act of 1920, 30 USC 181–263. All leasing and development must adhere to the NEPA. The BLM may impose lease stipulations to limit the rights of the oil and gas lessee and address potential conflicts over the use of the surface.
Royalties and royalty distribution	The rate varies. Restricted areas with known leasing (San Juan and Permian Basin) have 5-year leases with rates of 12.5, 16.7, 18.75, or 20 percent. Frontier areas (non-proven areas) have 10-year leases with 12.5 percent royalty rates. Collected in Land Grant Permanent Fund.	There is a 12.5 percent royalty rate for onshore leasing paid to the Minerals Management Service. Of this amount, 50 percent, minus an administrative fee, is distributed to the state of New Mexico's General Fund.
Locatable Minerals		
Application and administration	Management follows New Mexico Administrative Code 19.2.2. Leases are required, which involves a tract nomination/application process followed by a public tract auction process, a surface damage and performance bond, a maximum lease area of 640 acres, a required mine development plan, and application for permits from the permitting agency in accordance with the New Mexico Mining Act. The royalty is charged based on gross returns with a minimum of 2 percent for most minerals and a minimum of 5 percent for special minerals.	Minerals locatable on lands acquired under the Acquired Lands Act of 1947 are subject to lease only (43 CFR 3500). Federal certified mineral examiners determine uncommon variety minerals on a case-by-case basis, which may be locatable if the deposit meets certain tests created by various judicial and administrative decisions (43 CFR 3830, Subpart C).

	SLO	BLM
	Saleable Minerals/Mineral Materials	
Application and administration	<p>Management follows New Mexico Administrative Code 19.2.5. Mining of caliche, gypsum, clay, sand, gravel, stone, shale, perlite, volcanic deposits, humate, and borrow dirt involve 1–5 year terms with requirements for surface damage and performance bonding, mine operation plans, an environmental questionnaire, and reclamation plans.</p> <p>Royalty rates are negotiated; typical rates are shown below:</p> <p>Sand and gravel (\$0.75 per ton or \$1.10 per loose cubic yard)</p> <p>Borrow dirt (\$0.75 per ton or \$1.10 per loose cubic yard)</p> <p>Crusher fines (\$0.45 per ton or \$0.68 per loose cubic yard)</p> <p>Caliche (\$1.23 per ton or \$1.50 per loose cubic yard)</p> <p>See also details under locatable minerals, above.</p>	<p>Mineral materials are sold to the public at fair market value via a sales contract, or given free to states, counties, or other government entities for public projects under a free-use permit. Permits are regulated under 43 CFR 3610 and 3620. A portion of the revenues from the sale of mineral materials is provided to the state.</p>

Source: SLO 2021d; BLM 2021f

Fluid Mineral Leasing

For BLM-administered minerals, federal mineral royalties are collected at a rate of 12.5 percent for onshore fluid leasable minerals; 48 percent of this is transferred to the State of New Mexico General Fund. On state lands, state mineral royalties for fluid leasables are collected at a rate of 12.5 to 20 percent, based on the area of lease in a region with known or unknown potential. Royalty payments are considered nonrenewable revenues and are deposited in the State Land Grant Permanent Fund. In fiscal year 2020, \$936 million was collected in oil and gas royalties (SLO 2021e).

Most of the funds in the State Land Grant Permanent Fund are distributed to public schools. Other beneficiaries include state schools and universities, hospitals, public buildings, and the School for the Deaf and Visually Impaired. In 2020, total oil and gas revenue from rentals, royalties, and bonuses represented approximately \$959 million and over 90 percent of total SLO revenue (SLO 2020a, 2021e).

Oil and gas bonus and interest income is deposited in the State Land Maintenance Fund. In fiscal year 2020, oil and gas bonuses were \$20.8 million and interest was \$2.6 million (SLO 2021e). See **Table 4.1**, Agency Comparison of SLO and BLM Mineral Management.

Regardless of mineral ownership, taxes are collected from developing fluid minerals in New Mexico. These taxes contribute to the general state fund and specific programs, or a portion is transferred back to the county of origin. As a result, taxes support state and local government finances.

The following taxes are collected for leasable minerals:

- Severance Tax, New Mexico Statutes, Section 7-29-4—Severance tax levied on all products severed and sold at the rate of 3.75 percent

- Conservation Tax, New Mexico Statutes, Section 7-30-4—0.0019 percent conservation tax on crude oil and natural gas. When West Texas Intermediate spot oil price exceeds \$70/barrel, crude oil increases to .0024 percent.
- Emergency School Tax, New Mexico Statutes, Section 7-31-4—The rate for crude oil is 3.15 percent, and the rate for natural gas is 4 percent.

The costs of transportation, processing, and royalties paid to the United States, the State of New Mexico, or to any Indian Nation, tribe, or pueblo are deducted from the value received for products at the production unit when determining the value of oil or natural gas for tax purposes.

Exchanging BLM-administered lands with the SLO would also affect the process for leasing and the level of analysis required. For BLM-administered lands, mineral leasing and permits for drilling undergo a subsequent site-specific NEPA analysis. This could affect the timeline for development or result in the application of lease stipulation or conditions of approval, which affect development costs.

Leasing for SLO fluid minerals is conducted monthly; on SLO lands, lease sales are issued monthly. A party seeking to drill a natural gas or oil well in New Mexico must submit a Form C-101, Application for Permit to Drill, and follow regulations established by the New Mexico Oil Conservation Division. The cost and timeline for permitting may decrease, compared with permits for federal lands.

For fluid mineral leasing on BLM-administered and SLO lands, the level of economic contributions is dependent on market conditions influencing commodity prices and production volume. For instance, in fiscal year 2014 royalties were \$726.4 million. They fell to \$406.3 million in fiscal year 2016, and in fiscal year 2021 they were \$936.4 million.

Locatable Minerals

Locatable minerals located on BLM-administered lands are subject to the General Mining Law of 1872; they can be acquired for extraction by locating a mining claim. No royalties are paid to the federal government for removing locatable minerals. The SLO administers leases for locatable minerals to ensure the removal of resources while ensuring mine sites are properly reclaimed.

Locatable mineral extraction often requires water and salt water disposal; therefore, the SLO administers all fresh and salt water disposal easements and is responsible for reviewing all salt water disposal applications that may affect state lands. A lease involves a tract nomination/application process followed by a public tract auction process, surface damage and performance bonding, a lease area no larger than 640 acres, a mine development plan, and application for permits from the permitting agency in accordance with the New Mexico Mining Act. The SLO requires a royalty—a minimum of 2 percent for most minerals and a minimum of 5 percent for special minerals such as nuclear and gemstones—based on gross returns. The royalties and rental income from locatable minerals make up less than 1 percent of the total collected amount.

Mineral Materials

The BLM and SLO can issue leases for developing mineral materials, such as sand, gravel, and aggregate stone. The BLM sells mineral materials to the public at fair market value, but gives them free to states, counties, or other government entities for public projects. Also, a limited amount may be provided free to nonprofit groups. The SLO process for mineral materials involves an application process to minimize

surface damage and involves leases with a duration from 1 to 5 years; these leases can be renewed. Royalties are paid to the SLO, with a varying rate based on the type of commodity.

4.2.2 Livestock Grazing

Grazing would generally continue as a permitted use on lands proposed for exchange. A memorandum of understanding between the SLO and the BLM, dated June 22, 2000, states that land exchanges “should not interfere with ranching operations. Unless the land is to be dedicated to a use that would preclude grazing, the range user will have the preference to obtain grazing authorization from the new landowner.” Where the SLO acquires lands through exchange, the BLM would issue a 2-year notification before the lands are exchanged.

Transferring grazing permits from BLM to SLO jurisdiction may result in impacts on the lessee’s/permittee’s lease management and costs. **Table 4.2**, below, is a summary of differences in management of BLM and SLO grazing permits.

Table 4.2
Agency Comparison of SLO and BLM Grazing Management

	SLO	BLM
Grazing permit or lease	Authorizes, through an agricultural lease, the right to use state land for the production of crops and other natural resources beneficial to livestock. It may be subject to such other rights and uses as the Commissioner of Public Lands may authorize. There is no base property requirement.	Authorizes grazing by permit or lease for grazing outside of grazing districts and in grazing district boundaries based on Taylor Grazing Act guidelines. Base property would be required.
Grazing fee	The SLO has a grazing capacity established for the lease. It uses grazing capacity as part of a formula to determine the annual rental for the lease. According to New Mexico Administrative Code 19.2.8.11, the annual rental for grazing land is determined by this formula: \$0.0474 (base value) x carrying capacity x acreage x economic variable index. The current fee is estimated at \$4.85 per AUM however the SLO’s fees are based on the fee formula above and does not charge based on AUMs.	The current fee is \$1.35 per AUM.
Grazing fee distribution	Collected into the Land and Maintenance Fund and distributed monthly to the beneficiaries; public schools are the largest beneficiary. One percent is retained for the Restoration and Remediation Fund and appropriated operating budget.	Taylor Grazing Act Section 3 receipts are distributed as follows: 50 percent to the BLM, 37.5 percent to the US Treasury, and 12.5 percent to the state/counties. Taylor Grazing Act Section 15 receipts are distributed as follows: 50 percent to the BLM and 50 percent to the state/counties. Bankhead-Jones Act receipts are distributed as follows: 50 percent to the BLM, 25 percent to the US Treasury, and 25 percent to the state/counties.

	SLO	BLM
Grazing capacity/stocking levels	Carrying capacity is determined per section and reflects the potential of that land to support a number of livestock.	The grazing capacity of the permit or lease provides for a certain number of livestock and length of time they can use the lands. Capacity is based on the forage assessment completed before the lease is issued.
Access	Does not place specific access restrictions on the lessee's mode of travel or limitations on off-road travel. Lands are managed for authorized uses, and other uses may be excluded at the discretion of the Commissioner of Public Lands.	Allotments are normally available for rancher access via foot, horseback, or existing roads; however, there may be restrictions on off-road travel that would apply to ranchers and others, based on specific RMP provisions. Lands are managed for multiple use.
Range improvements	Range improvements require prior consent of the Commissioner of Public Lands; they are authorized through an application process by the lessee who holds the lease.	Range improvements are authorized through permit or cooperative agreement. Restrictions may apply based on specific RMP provisions.
Renewal	Leases expire every 5 years. Leaseholders have the right to match competitive bids by renewing their lease contracts no later than August 1 of the 5-year term, with the application fee and annual rental amount paid in full. If a competitive bid is placed, the lessees can retain their lease by following the application process and making the highest bid. Renewal contracts received after August 1 are not afforded the opportunity to match a competitive bid and are subject to a sealed bid process.	The existing leaseholder has priority. Changes may be required, based on land health monitoring and a NEPA analysis.

Source: SLO 2017

Costs are discussed at the county level and allotment basis in the *County-Level Impacts Discussion*, below. Overall impacts on the economy of the county or region would likely be limited, assuming grazing continues. Livestock grazing on SLO lands in 2020 represented approximately \$9.75 million in revenue (1.5 percent of the total SLO revenue).

Costs to individual lessees/permittees could be affected, particularly by the change in grazing fee. The level of impacts would be determined by the number of acres and AUMs proposed for transfer, the level of dependence on BLM-administered lands for grazing, and the size of the grazing operation. As shown in detail in **Table 4.2**, the formula used to determine grazing fees for BLM and SLO permits and leases differs, with BLM fees based on AUMs, and SLO fees representing a per-acre fee based on carrying capacity. As a result, the exact financial impacts on individual operators would be determined after site-specific appraisal and agency coordination. Should substantially changes in fees occur, financial impacts could occur to operators if no economically feasible alternative sources of forage were available. The most vulnerable would be likely to be small ranches with large levels of debt. If ranches went out of business, secondary impacts would occur to the local economy due to the loss of income generated and spending occurring as a result of this industry.

4.2.3 ROW Development

ROW authorizations occur on more than 850 acres of BLM-administered lands and over 1,800 acres of state lands identified for exchange. Once lands containing these ROWs are transferred to state or federal management, the respective agency would accept title to the land with the existing ROWs and manage authorizations under the current ROW lease terms and conditions, until expiration, termination, or relinquishment of the active ROW lease. For ROWs with no stated expiration, ROWs would be transferred to state or federal management, and managed under current terms and conditions. For the ROWs encumbering public land administered by the BLM going out of Federal ownership, the BLM may negotiate new grant terms and conditions with the grant holder. For ROW issued under Title V of the FLPMA, the holder can request for a ROW in perpetuity or convert their existing ROW to easement. For ROW issued under Section 28 of the Mineral Leasing Act of 192, as amended, this may include increasing the term to a maximum 30-year period or providing of an easement with a term not to exceed 30 years (43 CFR 2886.15(c)). If the existing ROW holder does not request either a perpetual ROW or conversion of their existing ROW to an easement, the ROW would be maintained under its current terms and conditions, including expiration date. The patent would be issued "subject to" the ROW, and the patentee (SLO) would succeed to their interest of the United States, including administration of the ROW and the ability to collect future rent. Once the ROW expires, the holder/operator would work with the State Land Office to establish a new authorization under state law for their current use (Final BLM Policy and Procedure for Issuance of "Long Term" Right-of-Way Grants and Easement Under 43 CFR Parts 2800 and 2880).

In cases where state lands are transferred to the BLM, the state may collect rent on a pro-rated basis from the time the exchange closes until the time the ROW expires, at which point the BLM would issue a new standard Title V FLPMA or MLA ROW grant. No compensation or payment for the loss of ROWs to authorized ROW leaseholders would be required. As a result, no direct impacts on ROW holders' fees would occur on lands proposed for exchange. Impacts may occur to ROW holders related to management requirements at ROW transfer due to differences in agency management. In addition, at ROW expiration, fees associated with permits may differ between the SLO and BLM. Expired ROW will be issued a new ROW grant in accordance with the new landowner's laws, regulations, and policies. The holder would be subject to agency specific fees associated with the new ROW terms and conditions as well as the term period available for their specific use. For example, BLM can only issue a 20-year term for fiber optic lines. The maximum term for standard ROWs is a 30-year period with exceptions for Federal Aid Highways. Active ROWs, the ROW type, and the expiration date are included for each AOI in the current land uses section.

In terms of new authorizations, both agencies would continue to issue authorizations pending review. The BLM's policy is to authorize all ROW applications, at the authorized officer's discretion, as efficiently and economically as possible. Exceptions would apply for areas where ROW development is restricted or prohibited based on land management plan direction (i.e., ROW avoidance or exclusion areas). Fees for BLM linear ROWs are determined on a per-linear acre rent schedule based on four factors: per-acre zone value based on National Agricultural Statistical Service Agricultural census data, encumbrance factor, rate of return, and annual adjustment factor following 43 CFR 2800 and 2880. Fees for SLO ROWs are based on the type of ROW, with different fee schedules for pipelines, roads, transmission lines, and communication sites.

The level of potential development for roads, pipelines, and other ROWs would depend on associated land uses; therefore, it is difficult to predict the level of development and associated revenue with certainty. However, due to the additional requirements for environmental review for federal lands, it is likely the transfer from SLO lands to BLM-administered lands would result in increased time and costs for authorization, while transfer of lands from the BLM to the SLO may result in decreased time for authorization.

4.2.4 Recreation

On BLM-administered parcels, regulations for recreation, such as hunting, off-road vehicle travel, or other uses, are based on management prescriptions set in relevant RMPs. Recreational access to STL is facilitated through a permit system determined by the specific type of use. Permits are issued for recreation annually for \$35. Travel on trust lands is restricted to public highways and established roads; off-road activities, other than foot travel, are not permitted. In addition, recreation is subject to restrictions, based on current permitted uses of the parcel, such as livestock grazing permits and leases. Recreational users of STLs must have a recreational access permit to access these lands.

BLM-administered parcels exchanged with the SLO may have decreased accessibility for recreation; however, current use is limited, based on restricted public access to most parcels selected for exchange. Impacts would be limited for parcels where there is no current use. Parcels with potential or known use would have a greater level of impacts, as detailed for specific AOs, where applicable.

Hunting is a potential use in some parcels. The 2021 easement agreement between the New Mexico State Game Commission and SLO (State of New Mexico 2021) would allow this activity to continue on exchanged lands. As a result, impacts of exchanging BLM-administered lands would be limited for all AOs. Collectively, recreational fishing, hunting, and trapping support more than 7,900 full- and part-time jobs and provide more than \$267 million in labor income. The direct spending by users who fish, hunt, and trap and the multiplier effects of that spending in New Mexico contribute \$453 million to the state's gross domestic product and add \$106.5 million in tax revenue (New Mexico Department of Game and Fish 2014). Allowing continued use would mean these economic contributions would continue.

For SLO lands exchanged with the BLM, there is a potential for increased recreation, due to increased public access and enhanced recreational opportunities in the lands selected for exchange. Increased recreation would support increased recreational spending. The level of economic contributions would be determined by the degree to which increased recreation visits or spending represent new income in the local economy.

4.2.5 Water

Based on the agreement between the SLO and BLM, lessee water rights would be treated as lessee-owned improvements, and no ownership to the water right of the lease would be asserted. No compensation or payment for loss of rights would be required. As a result, direct impacts on water users would be limited for all wells on lands proposed for exchange; no analyses of changes in revenue associated with permits are included in this report.

4.2.6 Special Features

Special features can provide nonmarket values. Nonmarket values are the benefits derived by society from the uses or experiences that are not dispensed through markets and that do not require payment. For

example, there are unique and sensitive natural and cultural resources on public lands, including Native American traditional uses and the special spiritual contribution and foundations that public lands provide to Native American cultures. These values enhance the quality of life and enjoyment of place, thereby improving regional and local economic conditions.

Proximity to undeveloped natural lands and the resources they harbor, including scenic vistas, recreation, and wildlife viewing opportunities, also add nonmarket value to the area.

Nonmarket values can be discussed in terms of ecosystem services. These are the goods that an ecosystem provides for human use. Four major categories of ecosystem services are typically defined:

- Provisioning services (i.e., supplies of raw materials such as fuel wood)
- Supporting services (i.e., nutrient recycling and soil formation)
- Regulating services (i.e., purification of water and air)
- Cultural services (i.e., preservation of cultural or historical artifacts, as well as supplying recreational experiences)

Preserving special characteristics would support increased ecosystem services contributions. If development degrades the land or water quality, the value of these services typically decreases.

STLs are not governed under the same multiple-use mandate as BLM-administered lands. As a result, there is a potential for impacts to occur on special status species habitat, the visual setting, or other features that can affect the level of nonmarket contributions for lands transferred from the BLM to the SLO.

Transfer of parcels out of federal management requires a separate compliance process stipulated in 54 USC 306108, commonly known as Section 106 of the National Historic Preservation Act, as amended. Compliance with Section 106 under these circumstances may require an agreement document developed by multiple federal and state agencies and other interested parties to resolve potential adverse effects on historic properties. In addition, state agencies and counties are subject to Endangered Species Act Section 9 regulations, which include prohibitions against the take of a listed species. The take prohibition includes significant habitat modification or degradation that results in the direct killing or injury to listed animal species.

Because the specific intensity and type of future land uses in the parcels proposed for exchange cannot be predicted, no quantitative assessment can be provided for impacts on most nonmarket contributions. As discussed under each AOI in **Chapter 3**, Current Land Uses, BLM-administered parcels selected for exchange with the SLO have limited special features identified.

4.2.7 Renewables

Renewable energy development-related leases, where developed, can generate substantial recurring annual revenues and expand the property tax bases of their respective counties. No existing leases are present on parcels selected for exchange. For BLM-administered lands, wind and solar energy development are managed under the lands and realty program, with ROW authorizations required for development. Applications for wind and solar energy projects are processed and authorized under Title V of the FLPMA, as amended, and 43 CFR 2800.

Utility-scale solar power or photovoltaic electric generating facilities must also comply with the BLM's planning and environmental requirements, including NEPA compliance. On January 18, 2017, the BLM enacted the Solar and Wind Energy Rule. This rule amended Title V of FLPMA to update the BLM's rate and fee structure for new solar and wind development and testing. This was done to ensure these rates and fees reflect current market conditions. The rule also provides flexibility to operators, develops a competitive bidding process, and encourages development in designated leasing areas (such as solar energy zones) that are most amenable to high generation with low resource conflicts.

For SLO lands, renewable energy development is managed under the commercial resources program, Office of Renewable Energy. Development must follow state regulations regarding cultural and heritage resources, as well as threatened and endangered species.

Chapter 5. State-Level Impacts Discussion

Land exchanges are a method by which federal agencies can acquire land while disposing of property that has few public benefits or that is difficult to manage. BLM New Mexico manages millions of acres of federal lands throughout the state. These millions of acres are dispersed in units ranging from tens of thousands of contiguous acres to small, isolated units of 160 acres or fewer, completely surrounded by state or private lands.

One of the BLM New Mexico's land management goals is to consolidate federal lands into larger contiguous units, in order to increase management efficiency. This goal is supported by exchanging SLO-selected parcels for selected federal parcels that are isolated from other BLM-administered lands.

The SLO intends to retain lands conveyed to it for long-term management and to generate revenue for its beneficiaries. The SLO and BLM New Mexico have executed a memorandum of understanding that recognizes valid existing rights and allows for generally similar management of exchanged lands.

In general, the SLO has a greater ability to make land available for commercial and industrial uses than the BLM. State lands are not subject to the same federal review process required under NEPA and other federal statutes for federally administered lands. In addition, the mission of the SLO is to optimize revenues, while protecting the health of the land for future generations. As a result, lands with commercial value, such as for renewable energy or ROW development, could result in increased economic contributions.

In contrast, the FLPMA directs the BLM to administer public lands “on the basis of multiple use and sustained yield” of resources. Per the Dingell Act Subtitle C, Part I, Section 1201(d)(2), in general, any STL that is acquired by the United States within Township 22 South, Range 01 West, and Township 22 South, Range 02 West shall become part of the Organ Mountains-Desert Peaks National Monument and be managed in accordance with Presidential Proclamation 9131 and any other applicable laws. Acquiring state land parcels in and near the Organ Mountains-Desert Peaks National Monument in Doña Ana County near Las Cruces would increase the BLM-administered lands' availability for public recreation and protection of resources. National monuments attract visitors, tourists, new residents, and businesses. Recent research found that national monuments added millions of dollars to the economies of communities close to them; they added hundreds of new jobs and increased the per capita income (Headwaters Economics 2017).

Lands with the Organ Mountains-Desert Peaks National Monument were identified for special status as a national monument and are managed under Presidential Proclamation 9131 (79 *Federal Register* 30431); this is due to cultural, historic, and natural values. Exchanging lands with special resource values, including cultural resources and wildlife habitat, would contribute to nonmarket values, such as ecological diversity and opportunities for wilderness and isolation experiences for recreationists. Protected natural amenities—such as pristine scenery and wildlife—also help sustain property values and attract new investment (Deller et al. 2001), and provide amenities attractive to retirees with nonlabor income (McGranahan 1999).

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Chapter 6. County-Level Impacts Discussion

6.1 SUMMARY BY LAND USE

Primary land uses and the identified level of use, based on categories defined in **Chapter 3**, Current Land Uses, are summarized in **Table 6.1**, below. Details for primary land uses by AOI are included in the *AOI Impacts Discussion* section below.

6.1.1 PILT Impacts

Payments in lieu of taxes (PILT) are federal payments to local governments that help offset losses in property taxes due to nontaxable federal lands within their boundaries. Public Law 94-565, dated October 20, 1976, was rewritten and amended by Public Law 97-258 on September 13, 1982, and was codified at Chapter 69, Title 31 of the United States Code. The law recognizes that the inability of local governments to collect property taxes on federally owned land can create a financial impact.

The formula used to compute the payments is contained in the PILT Act and is based on population, receipt sharing payments, and the amount of federal land in an affected county. Exchanging BLM-administered lands to the State of New Mexico would decrease PILT. Based on the acres proposed for exchange and 2020 PILT, the change in PILT by county is provided in **Table 6.2**, below.

Overall, a net annual loss to the State of New Mexico of \$54,064 in PILT was estimated, based on 2020 payment information. It should be noted, however, that this change represents a theoretical example if all parcels identified for potential exchange were exchanged. In addition, this value is derived based on PILT 2020 payments in the county, rather than by a parcel-specific determination of value. The actual change in PILT would vary based on the final appraised value of BLM-administered acres and the exclusion of BLM-administered acres for change because of environmental and other issues. In general, PILT increase annually; therefore, this amount would also vary by year. The SLO and BLM would work together to reduce potential impacts on PILT.

6.1.2 Tax Impacts

Improvements on private and state lands, including those for mineral and energy development, livestock grazing, ROW development, and other uses, generate taxes for the State of New Mexico and the counties of origin.

Gross receipt tax (GRT) is collected on the following actions relevant to SLO land use:

- Selling property in New Mexico
- Leasing or licensing property in New Mexico
- Performing services in New Mexico

The GRT rate varies throughout the state, from 5.125 to 8.6875 percent, depending on the location of the business. It varies because the total rate combines rates imposed by the state, counties, and, if applicable, municipalities where the businesses are located. The business pays the total GRT to the state, which then distributes the counties' and municipalities' portions.

Table 6.1
Lands Proposed for Exchange, by County

County	Areas of Interest	BLM-Administered Acres	State of New Mexico Acres	Current Use or Potential						
				Minerals	ROWs	Livestock Grazing	Recreation	Water	Special Features	Renewables
Catron	FL – Catron	18,706	—	U	C	h	U	C	—	U
Doña Ana	FL – Doña Ana	15,937	—	M	C	h	U	C	x	P
	FL – Doña Ana Border	15,897	—	M	C	h	U	N	—	P
	STL – North Doña Ana	—	54,487	M	C	h	U	N	—	P
	STL – South Doña Ana	—	27,412	M	C	h	U	N	—	P
Grant	FL – Grant/Luna Border	2,204	—	M	C	l	U	N	x	P
	FL – Grant Outlier	240	—	U	—	l	U	N	—	U
	FL – Grant Panhandle	31,594	—	U	C	h	U(x)	C	—	P
Hidalgo	FL – Hidalgo	240	—	U	C	l	U	N	—	P
	STL – Hidalgo	—	1,280	U	C	l	U	N	—	U
Luna	FL – East Luna	8,511	—	M	C	l	U	C	—	P
	FL – West Luna	12,503	—	M	C	l	U(x)	C	—	P
	STL – Luna	—	1,975	U	—	h	U	N	—	P
Otero	FL – Otero	3,686	—	L/M	C	l	U	C	—	P
Sierra	FL – Upper Sierra	16,945	—	U	C	h	U	C	x	P
	FL – Middle Sierra	1,721	—	M	C	h	U(x)	C	—	U
	FL – Lower Sierra	27,663	—	U	C	l	U	C	x	P
Socorro	FL – East Socorro	2,037	—	U	—	h	U	N	—	P
	FL – West Socorro	18,029	—	M	C	h	U	N	—	U

C / P / U / N = Current or known use / Potential exists / Unknown potential / No known use

M = active mines present within 5 miles of parcels within the AOI

L = active oil and gas leases are present within 5 miles of parcels within the AOI

h / m / l = grazing potential is high / medium / low

x = features are present

Table 6.2
Estimate of Impacts on Payments in Lieu of Taxes (PILT) by County¹

County	2020 Total PILT to County	2020 Total PILT Acres in County	2020 per Acre Average Payment	Total BLM-Administered Acres for Exchange	Total SLO Acres for Exchange	Net (Loss) or Gain in Federal Acres	Estimated PILT Revenue (Loss) or Gain to County
Catron	\$680,804	2,720,941	\$0.25	18,706	0	(8,706)	(\$4,676.50)
Doña Ana	\$3,334,673	1,183,275	\$2.82	31,834	81,899	50,065	\$141,183
Grant	\$2,225,752	1,161,936	\$1.92	34,038	0	(34,038)	(\$65,353)
Hidalgo	\$741,033	822,895	\$0.84	240	1,280	1,040	\$936
Luna	\$2,094,135	747,187	\$2.80	21,014	1,975	(19,039)	(\$53,309)
Otero	\$3,466,522	1,511,931	\$2.29	3,686	0	(3,686)	(\$8,441)
Sierra	\$1,266,753	1,301,119	\$0.97	46,329	0	(46,329)	(\$44,939)
Socorro	\$1,506,873	1,561,174	\$0.97	20,066	0	(20,066)	(\$19,464)

Source: DOI 2021

¹ Estimates of changes to PILT represent a theoretical example if all parcels identified for potential exchange were exchanged, where the value is based on an average per-acre cost from PILT 2020 payments in the county. Actual change in PILT would be determined based on the final appraised value of BLM-administered acres and the exclusion of BLM-administered acres for change because of environmental and other issues. The SLO and BLM would work together to reduce potential impacts on PILT.

Property taxes are generated on all property bought and sold in New Mexico. The ad valorem production and equipment tax is levied on the assessed value of products that are severed and sold in an amount equal to 150 percent of the value of products. The equipment tax is levied on the assessed value of the equipment at each production unit, in lieu of property tax on that equipment. The ad valorem tax rate is a composite of rates imposed by local taxing authorities, including counties and school districts. Taxes collected are distributed to the taxing county.

For these reasons, subsequent development on BLM-administered lands exchanged with the SLO would increase the GRT and property tax, which could provide additional funds to counties and wholly or partially offset the loss in PILT funds.

Because the SLO has a fiduciary responsibility to earn revenue, it seeks to acquire tracts with higher average value than those proposed for exchange with the BLM. As a result, the lands that the SLO has selected to acquire from the BLM have been identified for potential commercial and/or renewable energy value. In contrast, the SLO lands selected for exchange with the BLM are leased for grazing but have limited other commercial value. This is because of a lack of accessibility or a location in wilderness, or both. Due to uncertainties in the specific future uses of lands, a specific estimate of the commercial value of lands or the potential tax revenue associated with these lands is not available.

6.1.3 Minerals

As noted in the methods section, parcels proposed for exchange have no active oil and gas wells or mineral leases; however, a preliminary examination of BLM exchange parcels indicates there are known mineral materials, two mineral material sites, a plan of operations for locatable minerals, and mining claims. The potential for future development of parcels selected for exchange was examined based on available information, including on the presence or absence of development on other lands in proximity to the AOIs, and current development at the county level. A further environmental analysis, to be prepared prior

to the finalization of the exchange, will incorporate findings of ongoing mineral potential reports. The SLO seeks to acquire land with greater commercial value, so it is likely that some of the BLM lands being considered at this time will ultimately not be included in the final exchange.

Table 6.3, below, lists the counties with the potential for future mineral development on the parcels selected for exchange, based on the above criteria. The most common commodity being mined was aggregate, although some of the mines in the AOIs were extracting other commodities, such as shale, limestone, gold, silver, iron, and other minerals. There was no active oil and gas development in 2020 for any of the counties; as a result, it is anticipated that future development potential is limited, and impacts from exchange would be negligible for this resource.

Insufficient data are available to predict potential development and associated impacts for other minerals. Year 2019 product and current employment in the mining sector are included to provide context for the level of current development and the relative importance of the minerals sector for each county's local economy. All counties, other than Grant County, had less than 1 percent of employment in the mining sector.

Table 6.3
Counties Mineral Development Data

County	BLM Acres Proposed for Exchange	AOI(s) Containing Parcels with Active Oil and Gas Leases or Mining within 5 Miles	Active Mines in the County (number and type)	Commodities Mined in the County	Number/Percent Private Employment Mining (2019)
Catron	18,706	None	0	N/A	N/A
Doña Ana	31,834	FL – Doña Ana FL – Doña Ana Border	17 surface-open pit and 1 mill-crusher/prep	aggregate, scoria, clay and shale, limestone	18/0.0%
Grant	34,038	FL – Grant/Luna Border	2 underground- edit, 1 underground shaft, 3 mill, 2 surface-open pit, 1 underground-shaft, 1 other	gold, silver, silica/flux, copper, molybdenum, zinc, aggregate, copper limestone,	1,166/17.8%
Hidalgo	240	None	1 surface-open pit, 1 mill- flotation	aggregate, gold, silver	N/A
Luna	21,014	FL – East Luna FL – West Luna	7 surface-open pit, 1 surface	aggregate, agate	N/A
Otero	3,686	FL – Otero	7 surface-open pit, 1 other	iron, aggregate	69/0.6%
Sierra	29,384	FL – Middle Sierra	3 surface-open pit, 1 mill-crusher/prep	aggregate, zeolites	N/A
Socorro	20,066	FL – West Socorro	9 surface-open pits	aggregates, other, perlite, gemstone	N/A

Sources: BLM GIS 2021a; Headwaters Economics 2020; ENMRD 2021

Note: None of the counties in the analysis area produced oil or gas in 2020.

N/A: No data reported

6.1.4 Livestock Grazing

At the county level, the impacts of exchanging BLM-administered lands with the SLO depend on the acres and AUMs proposed for exchange and the local economy's level of dependence on livestock grazing and the agricultural sector. One component of impacts at the county level is the change in grazing fees provided to county government as a component of the Taylor Grazing Act. Under the Taylor Grazing Act, a portion of BLM grazing revenue is returned to the county of origin; 50 percent of Section 15 fees collected are returned to counties, and 12.5 percent of Section 3 fees are returned to counties.

Due to the acres and AUMs proposed for exchange, the greatest level of impacts on Taylor Grazing Act fees is anticipated in Catron, Luna, Doña Ana, and Grant Counties (**Table 6.4**).

The level of cattle in the county, based on the most recent US Department of Agriculture, National Agricultural Statistical Service agricultural census, and the percentage of employment in the county's agricultural sector are included to provide context for the local importance of agriculture and the county level of grazing. Note that the below estimated AUMs represent authorized AUMS; billed AUMs may be less depending on precipitation, weather conditions, and other factors limiting available forage. In addition, the displayed AUMs are based on BLM estimates of carrying capacity for the allotment. The SLO develops independent estimates of grazing capacity as part of a formula to determine the annual rental for the lease, however billing is not based on AUMs, and carrying capacity may vary from estimates provided below.

Table 6.4
Summary of County-Level Impacts on Livestock Grazing

County	Authorized BLM AUMs Proposed for Exchange/Cow Equivalent ¹	Estimated SLO AUMs Proposed for Exchange/Cow Equivalent ¹	Acres Proposed for Exchange ²	Number of Cattle (2017)	Percent Employment in Agriculture/Farm (2018)
Catron	2,403/325	0/0	18,420	23,241	22.1
Doña Ana	1,781/173	8,086/588	102,300	66,423	3.3
Grant	5,955/458	0/0	32,130	27,059	3.1
Hidalgo	36/3	72/6	1,470	22,692	8.7
Luna	3,135/361	49/4	31,800	26,639	3.4
Otero	315/12	0/0	4,120	16,279	1.8
Sierra	8,297/1,929	0/0	43,400	20,267	6.7
Socorro	2,117/125	0/0	15,200	42,521	10.4

Source: BLM 2021a; NASS 2017; Headwaters Economics 2020

¹Based on BLM-provided estimates

²Acres include all SLO and BLM exchange lands identified for potential exchange

6.1.5 Special Features

For Doña Ana County, the transfer of lands to the BLM for enhanced protection of special features in the Organ Mountains-Desert Peak National Monument may benefit the local and regional economy. A 2006 case study of Doña Ana County, New Mexico, found that the county was better positioned than many other amenity-rich communities to benefit economically from protected land status. This is because of nearby commercial air service, a substantial amount of public land under a variety of management types, high numbers of service sector jobs with a good mix of producer and consumer services, and an educated population (Sonoran Institute 2006).

6.2 ENVIRONMENTAL JUSTICE IMPACTS

Executive Order 12898 requires each federal agency to “make achieving environmental justice . . . part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations” (Executive Order 12898, 59 *Federal Register* 7629).

For this environmental justice analysis, US Census Bureau data were used to determine whether the populations in each county of the socioeconomic study area constitute a population that may be considered for environmental justice analysis. For a population to be considered a population of concern, at least one of the following criteria must be met:

- The minority population of the affected area exceeds 50 percent or is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis (CEQ 1997). “Meaningfully greater,” for the purpose of analysis in this plan, is defined as more than 10 percent higher than the comparison population at the state level.
Total minority population is defined as the total population minus that portion that is listed in US Census data as white, of non-Hispanic origin. This method includes all individuals who identify as a racial or ethnic minority, or both, without double counting these populations.
- Low-income populations are defined relative to the annual statistical poverty thresholds from the US Census Bureau (CEQ 1997). Council on Environmental Quality (CEQ) guidance does not provide criteria for determining low-income populations as specifically as it does for minority populations; therefore, for this analysis, low-income populations are defined as 50 percent or more of the population in the affected area being below the poverty level, or populations with at least 10 percent more people at or below the poverty level, relative to the state average level in poverty.
- Federally recognized tribes are considered environmental justice populations in and of themselves; when possible, they are included in the analysis as separate minority populations.

The percentage of the population in poverty and the percentage of minorities in the population were identified for each county in **Table 6.5**, below. Details by race and ethnicity are included in **Chapter 2, Baseline Data**. In the study area, most of the county populations analyzed are considered environmental justice populations under CEQ guidance, based on the percentage of the population identified as one or more racial or ethnic minority. Only Catron and Sierra Counties do not qualify as minority populations.

Based on an examination of poverty statistics, Socorro County was identified as having a population with a meaningfully greater percentage living below the poverty level.

Tribal populations in New Mexico were also analyzed for environmental justice concerns, relative to the lands proposed for exchange. No reservations or tribal trust lands are included in or adjacent to the parcels selected for exchange. The Mescalero Apache Reservation is located in Otero County. In addition, the Ysleta del Sur Pueblo is located across the state border, near El Paso, Texas. Impacts on these communities from the proposed land exchange are anticipated to be negligible.

In addition to county-level data, populations in counties with parcels proposed for exchange were also examined at the census tract level. Poverty by census tract is shown in

Figure 6.1, and the levels of minority populations are shown in Figure 6.2.

Table 6.5
County-Level Poverty and Minority Status (2019)

Geographic Area	Percentage of Individuals in Poverty (2019)	Percent Minority (2019)
Catron County	16.4	19.1
Doña Ana County	26.4	72.8
Grant County	24.0	54.2
Hidalgo County	25.8	61.0
Luna County	27.7	70.5
Otero County	22.1	51.1
Sierra County	26.7	35.5
Socorro County	29.7	65.5
New Mexico	19.1	62.6

Source: US Department of Commerce, Census Bureau 2019, as reported by Headwaters Economics 2021

Note: 2019 American comm Survey data represent average characteristics from 2015 to 2019. Counties in BOLD meet the defined criteria for further analysis as low-income populations and/or minority populations.

Total minority population defined as total population minus those of white, non-Hispanic descent

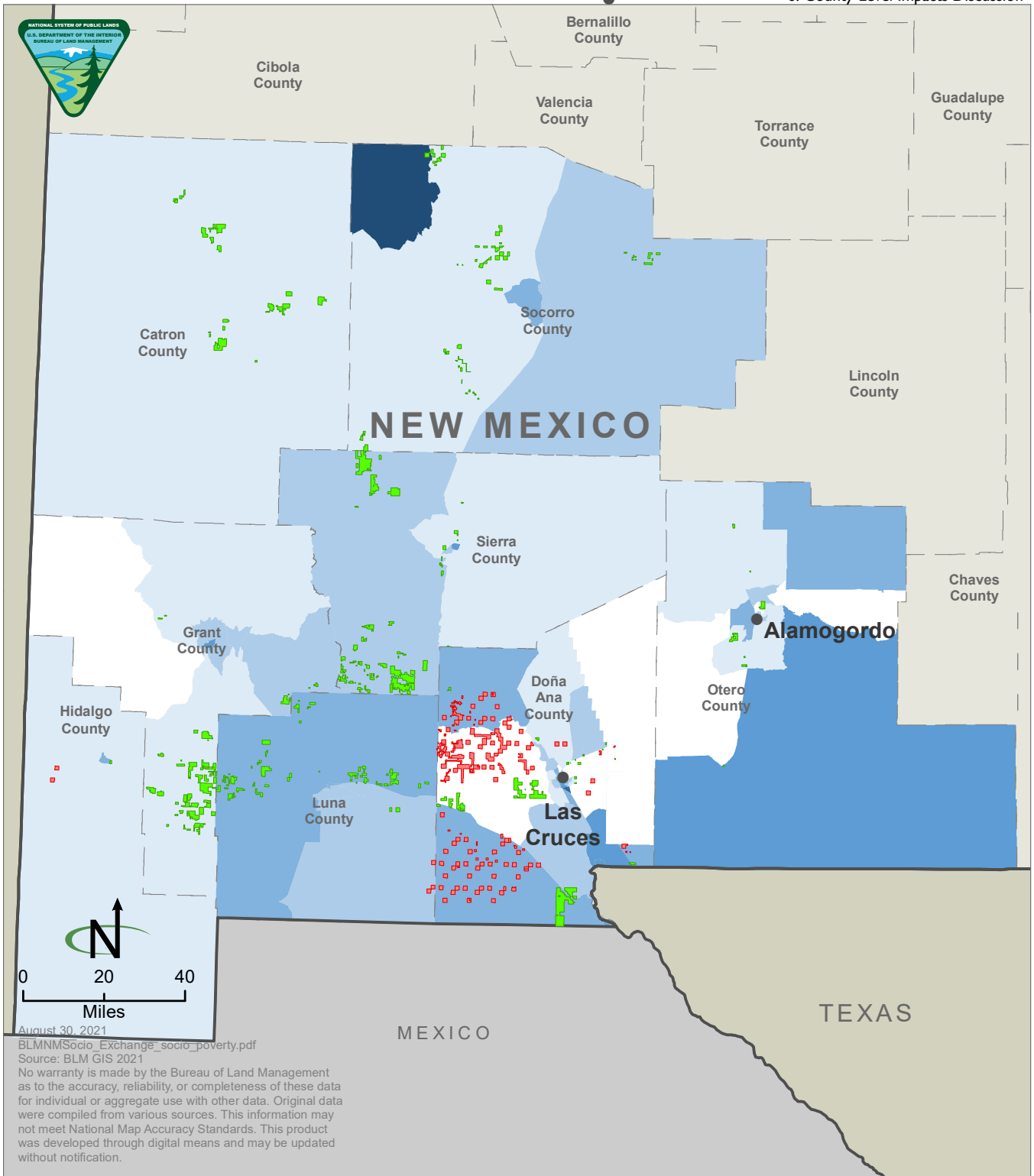
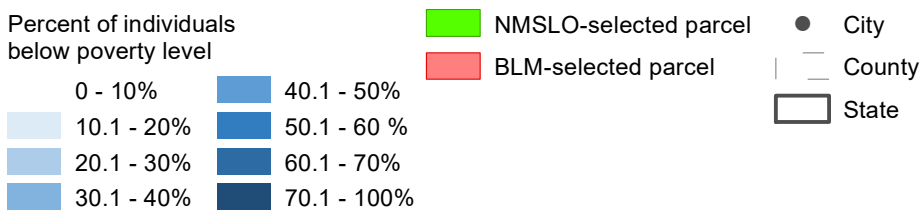
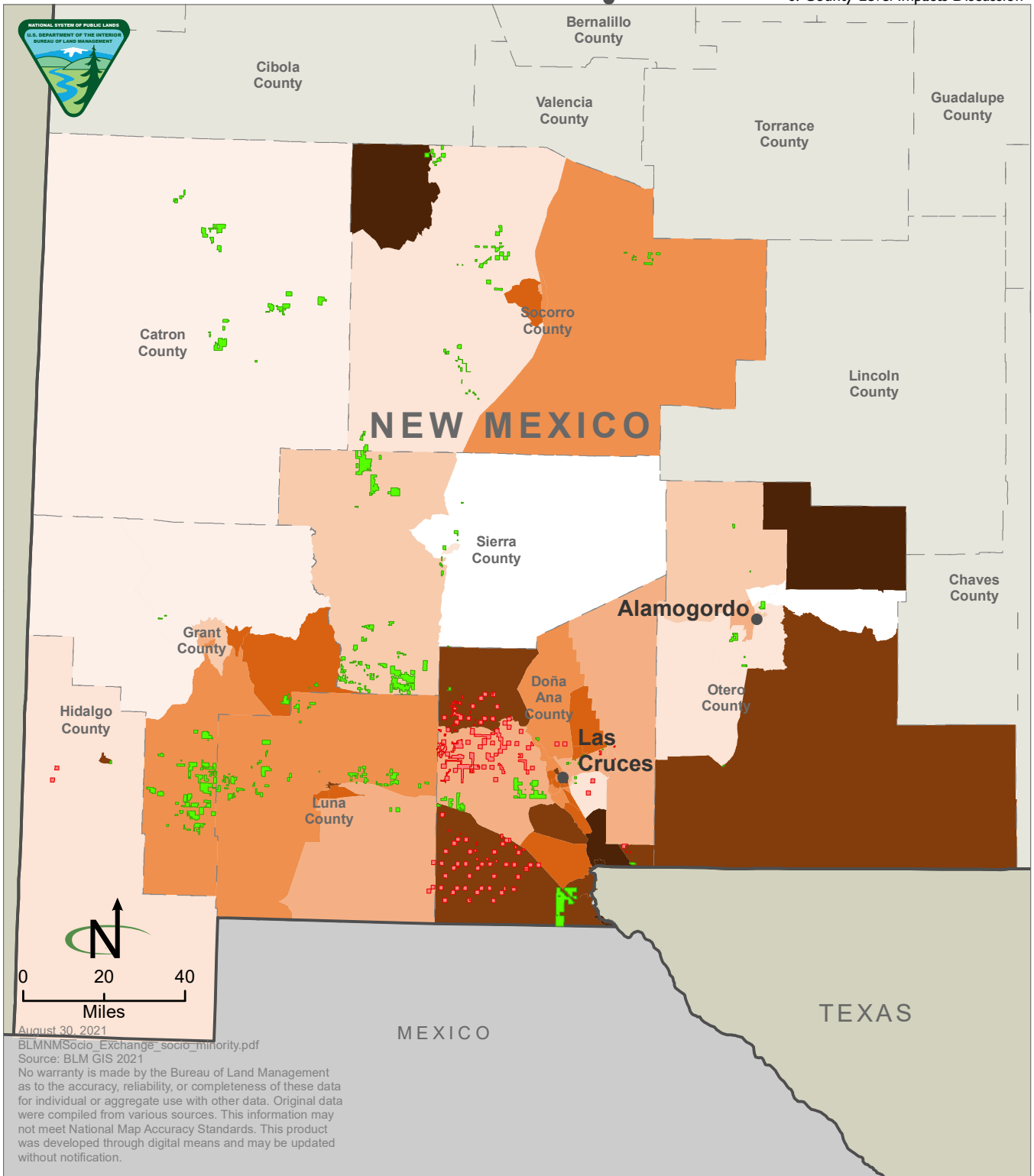


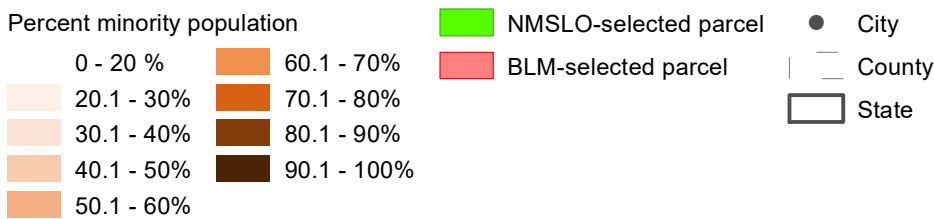
Figure 6-1
Analysis Area Populations in Poverty by Census Tract





August 30, 2021
 BLMNMSocio_Exchange_socio_minority.pdf
 Source: BLM GIS 2021
 No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed through digital means and may be updated without notification.

Figure 6-2
Analysis Area Minority Populations by Census Tract



“Disproportionately high and adverse” impacts are defined in CEQ guidance (CEQ 1997) as follows:

When determining whether environmental impacts are disproportionately high and adverse, agencies are to consider the following three factors to the extent practicable:

- (a) Whether there is or will be an impact on the natural or physical environment that significantly (as employed by NEPA) and adversely affects a minority population, low-income population, or Indian tribe. Such impacts may include ecological, cultural, human health, economic, or social impacts on minority communities, low-income communities, or Indian tribes when those impacts are interrelated to impacts on the natural or physical environment; and
- (b) Whether environmental impacts are significant (as employed by NEPA) and are or may be having an adverse impact on minority populations, low-income populations, or Indian tribes that appreciably exceed or are likely to appreciably exceed those on the general population or other appropriate comparison group; and
- (c) Whether the environmental impacts occur or would occur in a minority population, low-income population, or Indian tribe affected by cumulative or multiple adverse exposures from environmental hazards.

As noted in CEQ guidance, some population groups may have differential patterns of consumption of natural resources, which could result in different degrees of impact.

Differential patterns and intensities of consumption of natural resources may also relate to subsistence and differential patterns of subsistence. It means differences in rates or patterns of fish, water, vegetation, and wildlife consumption among minority populations, low-income populations, or Indian tribes, as compared with the general population. In the study area, there is a potential for differential rates in patterns and consumption of resources by tribal populations. One example is the use of native plants for medicinal or ceremonial purposes.

The extent to which the identified minority, low-income populations, and/or tribes are disproportionately affected by the proposed land exchange depends on the existence of adverse human health or environmental impacts from the proposed land exchange. It also depends on whether minority populations are particularly vulnerable to these impacts or are more likely to be exposed to such impacts.

The SLO emphasizes revenue generation from the lands it holds in trust; therefore, current uses of exchanged lands may change over time, as development opportunities arise. These potential changes in use may have adverse impacts on minority, tribal, or low-income populations; however, it is not possible to project, with any certainty, what the changes or impacts might be.

Most of the potential impacts on environmental justice populations that may arise from the currently proposed land exchange would be social or cultural, or both. Such impacts can rarely be externally identified and even more rarely quantified.

There are no data available on any immediate changes in use for lands included in the exchange. If current uses of lands are assumed to continue after the exchange (for example, continued use of lands for grazing), then there are no identifiable disproportionate and adverse impacts on environmental justice populations.

Sporadic, seasonal, or intermittent use of a particular area for culturally specific observances or other activities, such as collecting culturally important materials or plants, is particularly difficult to document in any systematic way. It may be useful to include, as part of the land exchange stipulations, that the SLO will allow continued use of former federal lands for traditional cultural purposes.

Some direct economic impacts of the proposed land exchange may affect the level of taxes or revenue collected and distributed in each county. This includes impacts in the form of changes in taxation or services funded with tax dollars. Impacts would be spread throughout the county and the region; therefore, the exchange of lands is not likely to result in disproportionate impacts on identified environmental justice populations.

Individuals of minority, low-income, or tribal affiliation may also be adversely affected by such factors as changes in grazing fees due to exchange of federal lands into state ownership. These individual adverse economic impacts would not be on the county population as a whole, but on individual allotment users. There would be no disproportionate and adverse impacts on environmental justice populations at the county level from such changes in grazing fees.

Chapter 7. Parcel-Level Impacts Discussion

7.1 LIVESTOCK GRAZING SUMMARY

Livestock grazing is one of the most common current uses for parcels selected for potential exchange, as noted in the AOI current use section. Impacts on operators would occur at a per-parcel basis when all or a portion of a lease is included in the BLM or SLO exchange, and the grazing leases/allotment management transferred as a result of land exchange.

Table 7.1 provides a summary of the estimated AUMs proposed for transfer and the impact on grazing fees as a result of transfer. This table includes both FL and STL AOIs, as some allotments have portions in both BLM and SLO exchange lands. The level of financial impacts for permittees would vary on an individual permittee basis, with a greater potential for impacts occurring for those who would have management of leases transferred in full from BLM-administered to SLO lands.

These calculations are based on BLM AUM estimates. As discussed in **Chapter 3**, Current Land Uses, BLM and SLO estimates for AUMs for a given allotment vary. The final change in grazing fees for operators will be determined based on final parcels with grazing allotments that are included in the exchange, and BLM and SLO coordination.

Table 7.1
Summary of Impacts on Livestock Grazing by BLM Allotment

AOI	Allotment Name(s)	BLM Acres	AUMs on BLM Exchange Parcel	SLO Acres	AUMs on SLO Exchange Parcels	Estimated BLM Grazing Fees Collected (\$1.35/AUM)	Estimated SLO Grazing Fees Collected (\$4.85/AUM)	Estimated Total Change Grazing Fees after land transfer (+ / -)
FL – Upper Sierra	74 Ranch	307	120	—	—	\$162.00	\$582.00	\$420.00
FL – Grant Panhandle	96 Creek Lease	270	48	—	—	\$64.80	\$232.80	\$168.00
FL – Middle Sierra	A Spear Ranch	457	41	—	—	\$55.35	\$198.85	\$143.50
STL – South Doña Ana	Afton	0	0	3,375	229	\$309.15	\$1,110.65	\$(801.50)
FL – East Luna	Akela North	645	72	—	—	\$97.20	\$349.20	\$252.00
FL – Doña Ana	Akela South	319	47	—	—	\$63.45	\$227.95	\$164.50
FL – East Luna	Akela West Lease	960	60	—	—	\$81.00	\$291.00	\$210.00
STL – North Doña Ana	Alamo Basin	0	0	3,519	585	\$789.75	\$2,837.25	\$(2,047.50)
FL – Middle Sierra	Alamosa	81	13	—	—	\$3,611.25	\$12,973.75	\$45.50
STL – North Doña Ana	Altamira	0	0	—	324	\$437.40	\$1,571.40	\$(168.00)
FL – West Luna	Antelope Draw Lease	1,214	276	—	—	\$372.60	\$1,338.00	\$966.00
FL – West Socorro	Antelope West	299	38	—	—	\$51.30	\$184.30	\$133.00
FL – Middle Sierra	Apodoca Allotment	455	3	—	—	\$4.05	\$14.50	\$10.50
FL – Catron	Arroyo Baca	466	67	—	—	\$90.45	\$324.95	\$234.50
FL – Catron	Baca Spring	33	5	—	—	\$6.75	\$24.25	\$17.50
FL – Otero	Bar H W Ranch	1,549	169	—	—	\$228.19	\$819.65	\$591.50
FL – Catron	Bat Cave	381	11	—	—	\$14.85	\$53.35	\$38.50
FL – Doña Ana Border	Beacon	9,974	650	—	—	\$877.5	\$3152.5	\$2275.00
FL – West Socorro	Bear Springs	27	4	—	—	\$5.40	\$19.40	\$14.00
FL – Lower Sierra	Beck Land and Cattle Co.	1,262	96	—	—	\$129.60	\$465.6	\$336.00
FL – Lower Sierra	Beck Lease	0	204	—	—	\$275.40	\$989.4	\$714.00
FL – Otero	Beeman Canyon Lease	1,232	—	—	—	—	—	—
FL – Lower Sierra	Berrenda Creek	1,203	240	—	—	\$324.00	\$1,164.00	\$840.00
STL – North Doña Ana	Bignell Arroyo	0	0	568	76	\$102.60	\$368.60	\$(266.00)
FL – Otero	Black Ledge	327	24	—	—	\$32.40	\$116.24	\$84.00
FL – West Luna	Black Mountain Ranch	641	120	—	—	\$162.00	\$582.00	\$420.00
FL – Grant Outlier	Blacksmith Canyon Lease	200	60	—	—	\$81.00	\$291.00	\$210.00
FL – Grant/Luna Border	Blue Mountain Lease	42	12	—	—	\$16.20	\$58.20	\$42.00
STL – North Doña Ana	Broad Canyon	0	0	1,967	198	\$267.00	\$960.00	\$(693.00)
FL – Grant Panhandle	Brockman Lease	168	24	—	—	\$32.40	\$116.40	\$84.00
FL – Grant Panhandle	Burro Cienega Lease	2,534	451	—	—	\$608.85	\$2187.35	\$1578.50
FL – West Luna	Butterfield Lease	320	24	—	—	\$372.60	\$1,338.60	\$966.00

AOI	Allotment Name(s)	BLM Acres	AUMs on BLM Exchange Parcel	SLO Acres	AUMs on SLO Exchange Parcels	Estimated BLM Grazing Fees Collected (\$1.35/AUM)	Estimated SLO Grazing Fees Collected (\$4.85/AUM)	Estimated Total Change Grazing Fees after land transfer (+ / -)
FL – Doña Ana	Cambray Allotment	3,728	395	—	—	\$877.50	\$3,152.50	\$2,275.00
FL – West Socorro	Canon Bonito	3,119	413	—	—	\$557.55	\$2,003.05	\$1,445.50
FL – East Luna	Carne Lease	202	12	—	—	\$16.20	\$58.2	\$42.00
FL – West Luna	Catfish Cove Lease	537	96	—	—	\$129.60	\$465.6	\$336.00
FL – Doña Ana Border SLT – South Doña Ana	Chaparral	441	15	8,575	38	\$-	\$-	\$(80.50)
FL – Lower Sierra	China Draw Lease	332	72	—	—	\$97.20	\$349.20	\$252.00
FL – Upper Sierra	Chiz Ranch	454	144	—	—	\$194.40	\$698.40	\$504.00
FL – Grant/Luna Border	Cordwood	339	72	—	—	\$97.20	\$349.20	\$252.00
FL – Doña Ana STL – North Doña Ana	Corralitos Ranch	4,364	377	8,344	2,405	\$-	\$-	\$(7,098.00)
FL – West Luna	Cow Springs Draw Lease	330	24	—	—	\$32.40	\$116.40	\$84.00
FL – West Luna	Cow Springs Lease	506	63	—	—	\$85.05	\$305.55	\$220.50
FL – Lower Sierra	Coyote Mountain Lease	654	133	—	—	\$179.55	\$645.05	\$465.50
FL – Upper Sierra	Cuchillo Negro	813	120	—	—	\$162.00	\$582.00	\$420.00
FL – Upper Sierra	Cuchillo Negro Lease	0	23	—	—	\$31.50	\$111.55	\$80.50
FL – Lower Sierra	Decker Draw Lease	677	24	—	—	\$32.40	\$116.40	\$84.00
FL – East Luna	Deming Lease	3,111	396	—	—	\$534.60	\$1,920.60	\$1,386.00
FL – Otero	Domingo Springs	522	40	—	—	\$54.00	\$194.00	\$140.00
STL – North Doña Ana	Doña Ana Mountains	0	0	1,279	0	\$-	\$-	\$-
FL – Upper Sierra	Double Arrow Ranch	6,308	1,248	—	—	\$1,684.80	\$6,052.80	\$4,368.00
FL – West Luna	Double Bar V Lease	169	24	—	—	\$32.40	\$116.40	\$84.00
FL – Lower Sierra	Double S	9,030	2,148	—	—	\$2,948.40	\$10,592.40	\$7,644.00
FL – Grant/Luna Border	Draw Lease	0	0	—	—	\$-	\$-	\$-
STL – North Doña Ana	Dripping Springs	0	0	1,288	67	\$90.45	\$324.95	\$(234.50)
FL – Catron	E Horse Mountain	1,134	107	—	—	\$144.45	\$518.95	\$374.50
FL – Catron	Emery	958	96	—	—	\$129.60	\$465.60	\$336.00
FL – Catron	Emery	2,336	379	—	—	\$511.65	\$1,838.15	\$1,326.50
FL – Catron	Evans Well	1,030	108	—	—	\$145.80	\$523.80	\$378.00
FL – Grant/Luna Border	Faywood Lease	40	12	—	—	\$16.20	\$58.20	\$42.00
FL – West Luna	Grandmother Mountain Lease	1,062	132	—	—	\$178.20	\$640.20	\$462.00
FL – Grant Panhandle	Hachita Divide Lease	4,211	830	—	—	\$1,120.50	\$4,025.50	\$2,905.00

AOI	Allotment Name(s)	BLM Acres	AUMs on BLM Exchange Parcel	SLO Acres	AUMs on SLO Exchange Parcels	Estimated BLM Grazing Fees Collected (\$1.35/AUM)	Estimated SLO Grazing Fees Collected (\$4.85/AUM)	Estimated Total Change Grazing Fees after land transfer (+ / -)
FL – Grant Panhandle	Hachita Highway	2,347	420	—	—	\$567.00	\$2,037.00	\$1,470.00
FL – West Socorro	Hale Well	40	6	—	—	\$8.10	\$29.10	\$21.00
FL – Catron	Half Circle D	420	72	—	—	\$97.20	\$349.20	\$252.00
FL – Doña Ana	Hawkeye Canyon	78	6	—	—	\$8.10	\$29.10	\$21.00
FL – West Luna FL – Grant Panhandle	Hay Draw Lease	8,970	1,704	—	—	\$2,304.40	\$8,264.40	\$5,960
FL – West Socorro	Hickman Ranch	33	4	—	—	\$5.40	\$19.40	\$14.00
STL – North Doña Ana FL – Doña Ana	Home Ranch	2,540	180	84	0	\$243.00	\$873.00	\$630.00
STL – North Doña Ana	Horse Canyon	0	0	57	0	\$-	\$-	\$-
STL – North Doña Ana	Indian Springs	0	0	2,298	141	\$190.35	\$683.85	\$(493.50)
FL – West Socorro	Iron Mountain	929	132	—	—	\$178.20	\$640.20	\$462.00
FL – Lower Sierra	Jaralosa Creek	154	12	—	—	\$16.20	\$58.20	\$42.00
FL – Grant Panhandle	Jarrell Ranch Lease	7,068	1,030	—	—	\$1,390.50	\$4,995.50	\$3,605.00
FL – West Luna	Jones Spring Draw Lease	316	48	—	—	\$64.80	\$232.80	\$168.00
FL – Doña Ana Border STL – North Doña Ana	Kilbourne Hole	1,375	69	5,892	79	\$-	\$-	\$(35.00)
FL – Hidalgo	Koff Lease	191	36	—	—	\$48.60	\$174.60	\$126.00
FL – West Socorro	La Jencia Ranch	80	12	—	—	\$16.20	\$58.20	\$42.00
FL – Doña Ana Border	La Union	2,996	57	54	0	\$76.95	\$276.45	\$199.50
FL – Upper Sierra	Ladder Ranch	1,239	277	—	—	\$373.95	\$1,343.45	\$969.50
FL – Lower Sierra	Lake Valley	654	312	—	—	\$421.2	\$1,513.20	\$1,092.00
STL – North Doña Ana	Las Uvas Mountains	0	0	3,476	603	\$814.05	\$2,924.55	\$(2,110.50)
STL – North Doña Ana	Lazy E	498	48	8,344	1,104	\$-	\$-	\$(3,696.00)
FL – West Luna	Little Grandmother Mountain	2,651	360	—	—	\$486.00	\$1,746.00	\$1,260.00
STL – North Doña Ana	Loco	0	0	1,281	204	\$275.40	\$989.40	\$(714.00)
FL – Otero	Lone Butte	395	70	—	—	\$94.50	\$339.50	\$245.00
FL – Otero	Lone Butte Lease	45	12	—	—	\$16.20	\$58.20	\$42.00
FL – Lower Sierra	Macho Creek Lease	79	12	—	—	\$16.20	\$58.20	\$42.00
FL – Lower Sierra	Macho Spring Lease	71	12	—	—	\$16.20	\$58.20	\$42.00
FL – Catron	Mangas Ranch	5,975	1,000	—	—	\$1,350.00	\$4,850.00	\$3,500.00
FL – Grant Outlier	Mangas Valley Lease	81	24	—	—	\$32.40	\$116.40	\$84.00
FL – Grant Panhandle	McDonald Draw Lease	467	14	—	—	\$18.90	\$67.90	\$49.00
FL – East Socorro	Mesa Redonda	1,400	274	—	—	\$369.90	\$1,328.90	\$959.00
STL – Hidalgo	Mondel Flat	0	0	140	0	\$-	\$-	\$-
FL – Catron	Montoya	728	108	—	—	\$145.80	\$523.80	\$378.00

AOI	Allotment Name(s)	BLM Acres	AUMs on BLM Exchange Parcel	SLO Acres	AUMs on SLO Exchange Parcels	Estimated BLM Grazing Fees Collected (\$1.35/AUM)	Estimated SLO Grazing Fees Collected (\$4.85/AUM)	Estimated Total Change Grazing Fees after land transfer (+ / -)
FL – Lower Sierra	Montoya Arroyo	145	26	—	—	\$35.10	\$126.10	\$91.00
FL – Upper Sierra	Monument Creek	110	17	—	—	\$22.95	\$82.45	\$59.50
FL – Grant Panhandle	Muir Exit Lease	1,618	288	—	—	\$388.80	\$1,396.80	\$1,008.00
FL – Catron	North Fork Alamocito	197	30	—	—	\$40.50	\$145.50	\$105.00
FL – Lower Sierra	Nutt Mountain	6,447	0	—	—	\$-	\$-	\$-
FL – Lower Sierra	Oak Spring Lease	778	173	—	—	\$233.55	\$839.05	\$605.50
FL – West Luna	Old Town Lease	149	36	—	—	\$48.60	\$174.60	\$126.00
FL – Otero	Orogrande Ranch	51	0	—	—	\$-	\$-	\$-
FL – West Socorro	Oso Flats	409	96	—	—	\$129.60	\$465.60	\$336.00
FL – Catron	Patterson	3,811	254	—	—	\$342.90	\$1,231.90	\$889.00
FL – Catron	Paul Lund	319	65	—	—	\$87.75	\$315.25	\$227.50
FL – Doña Ana STL – North Doña Ana	Picacho Peak	1,565	108	1,253	40	\$-	\$-	\$238.00
FL – Doña Ana STL – North Doña Ana	Picacho Peak	0	20	—	8	\$-	\$-	\$42.00
FL – Doña Ana	Placita Arroyo	255	36	—	—	\$48.60	\$174.60	\$126.00
STL – Hidalgo	Playa	0	0	1,140	72	\$104.40	\$349.20	\$(244.80)
STL – Luna	POL East	0	0	5,749	49	\$66.04	\$237.26	\$(171.22)
FL – West Luna	Porter Draw Lease	145	24	—	—	\$32.40	\$116.40	\$84.00
STL – South Doña Ana	Potrillo Ranch (Border)	0	0	3,758	324	\$437.40	\$1,571.40	\$(1,134.00)
STL – South Doña Ana	Potrillo Ranch (Mt. Riley)	0	0	4,679	0	\$-	\$-	\$-
FL – Middle Sierra	Racetrack Ranch	20	0	—	—	\$-	\$-	\$-
FL – West Socorro	Reinhardt	1,724	142	—	—	\$191.70	\$688.70	\$497.00
FL – Catron	RM Chavez	247	60	—	—	\$81.00	\$291.00	\$210.00
STL – North Doña Ana	Rock Canyon	0	26	—	—	\$35.10	\$126.10	\$91.00
FL – Upper Sierra	Rogue Ramos Canyon (Lanford)	2,082	432	—	—	\$583.20	\$2,095.20	\$1,512.00
FL – Upper Sierra	Rogue Ramos Canyon (Luchini)	0	0	—	—	\$-	\$-	\$-
FL – Upper Sierra	Rogue Ramos Canyon (Montoya)	0	0	—	—	\$-	\$-	\$-
STL – North Doña Ana	Rose Well	0	0	240	36	\$48.60	\$174.60	\$-126.00
FL – West Socorro	S La Jencia Ranch	4,619	564	—	—	\$761.40	\$2,735.40	\$1,974.00
FL – West Luna	S Taylor Mountain Lease	107	24	—	—	\$32.40	\$116.40	\$84.00
STL – North Doña Ana	Saddle Mountain	0	0	5,480	762	\$1,028.70	\$3,695.70	\$(2,667.00)
FL – Grant Panhandle	Saltys Lease	763	168	—	—	\$226.80	\$814.80	\$588.00
STL – North Doña Ana	San Augustine Spring	0	0	15	2	\$2.13	\$7.64	\$(5.51)

AOI	Allotment Name(s)	BLM Acres	AUMs on BLM Exchange Parcel	SLO Acres	AUMs on SLO Exchange Parcels	Estimated BLM Grazing Fees Collected (\$1.35/AUM)	Estimated SLO Grazing Fees Collected (\$4.85/AUM)	Estimated Total Change Grazing Fees after land transfer (+ / -)
FL – Grant Panhandle	Separ Lease	346	48	—	—	\$64.80	\$232.80	\$168.00
FL – Grant Panhandle	Separ Ranch Lease	1,788	240	—	—	\$324.00	\$1,164.00	\$840.00
FL – Catron	Shaw Canyon	178	5	—	—	\$6.75	\$24.25	\$17.50
FL – Upper Sierra	Sherman Mountain	72	24	—	—	\$32.40	\$116.40	\$84.00
STL – North Doña Ana	Sierra Alta	0	0	350	72	\$97.20	\$349.20	\$(252.00)
FL – West Socorro	Silver Creek	639	87	—	—	\$117.45	\$421.95	\$304.50
FL – East Luna	Simpson Lease	3,421	432	—	—	\$583.20	\$2,095.2	\$1,512.00
FL – Grant Panhandle	Smith Draw Lease	1,207	216	—	—	\$291.60	\$1,047.60	\$756.00
STL – North Doña Ana	Souse Spring	0	0	117	13	\$17.55	\$63.05	\$(45.50)
FL – Upper Sierra	South Fork	5	0	—	—	\$-	\$-	\$-
FL – Grant Panhandle	Southwell Ranch	607	96	—	—	\$40.50	\$145.50	\$105.00
FL – Grant Panhandle	Still Canyon Lease	118	30	—	—	\$97.20	\$349.20	\$252.00
FL – Grant/Luna Border	Table Mountain Lease	1,794	372	—	—	\$502.20	\$1,804.20	\$1,302.00
FL – West Luna	Taylor Mountain Lease	600	96	—	—	\$129.60	\$465.60	\$336.00
FL – Upper Sierra	Turkey Creek	2,778	696	—	—	\$939.60	\$3,375.60	\$2,436.00
FL – East Socorro	Twin Tanks	635	125	—	—	\$168.75	\$606.25	\$437.50
FL – Catron	W Emery	210	36	—	—	\$48.60	\$174.60	\$126.00
FL – West Socorro	Water Canyon	1,259	220	—	—	\$297.00	\$1067.00	\$770.00
STL – South Doña Ana	West Potrillo	91	8	8,579	806	\$-	\$-	\$(2,971.80)
FL – Grant Panhandle	White Rock Canyon Lease	2,317	684	—	—	\$923.40	\$3,317.4	\$2,394.00
FL – Lower Sierra	Whiterock Mountain Lease	4,781	1,344	—	—	\$1,814.4	\$6,518.4	\$4,704.00
FL – Upper Sierra	Willow Spring Draw	158	24	—	—	\$32.40	\$116.40	\$84.00
FL – Upper Sierra	Witch Well Allot	1,721	300	—	—	\$405.00	\$1,455.00	\$1,050.00
FL – Middle Sierra	Yaple Canyon	84	7	—	—	\$9.45	\$33.95	\$24.50

7.2 ROW SUMMARY

Overall, previously permitted uses would be permitted to continue following the memorandum of understanding established between the BLM and SLO regarding allowing for generally similar management of exchanged lands. Impacts may occur on fees associated with individual ROW permit holders from the proposed land exchange. Impacts would be concentrated on those permit holders whose permits are subject to renewal, as fees would be assessed at that time and may change with transfer to the SLO, as discussed in Section 4.2. ROWs with permits past stated expiration dates would require review at transfer to determine if permits are active, and appropriate fees to be applied.

7.3 BLM EXCHANGE PARCELS

7.3.1 Future Mineral Development

As discussed in **Chapter 3**, limited data were available to determine the potential for future mineral development. In the absence of mineral potential data, the assumption is that the parcels selected for exchange in AOIs with active mineral development in close proximity have a higher likelihood of future development, given the presence of mineral resources and infrastructure that support development. For this reason, AOIs within 5 miles of current mineral leases or mines are indicated below in **Table 7.2**.

Table 7.2
Summary of Available Mineral Data by AOI

AOI	Fluid Leasable (Oil and Gas)	Surface Mining
FL – Catron	—	—
FL – Doña Ana	—	Active mines are present within 5 miles of parcels within the AOI.
FL – Doña Ana Border	—	Active mines are present within 5 miles of parcels within the AOI.
FL – Grant/Luna Border	—	Active mines are present within 5 miles of parcels within the AOI.
FL – Grant Outlier	—	—
FL – Grant Panhandle	—	—
FL – Hidalgo	—	—
FL – East Luna	—	Active mines are present within 5 miles of parcels within the AOI.
FL – West Luna	—	Active mines are present within 5 miles of parcels within the AOI.
FL – Otero	Active oil and gas leases are present within 5 miles of parcels within the AOI.	Active mines are present within 5 miles of parcels within the AOI.
FL – Upper Sierra	—	—
FL – Middle Sierra	—	Active mines are present within 5 miles of parcels within the AOI.
FL – Lower Sierra	—	—
FL – East Socorro	—	—
FL – West Socorro	—	Active mines are present within 5 miles of parcels within the AOI.

Source: MMD 2021; BLM GIS 2021a

The development potential will be further informed by the findings in the mineral report, which is under preparation to support this land exchange analysis. Should the additional analysis indicate a potential for development, parcels may not be carried forward in the final transfer. The presence of mineral materials

is unlikely to affect the land transfer decision due to the abundance of this resource in the region. As a result, mineral materials information is not detailed below.

7.3.2 Renewables

Renewable energy development can be examined based on the availability of the resource. The potential for solar and wind energy development was examined based on average wind speed data, as mapped by the National Renewable Energy Laboratory, and solar energy DNI. The resource potential for development of solar and/or wind energy was predicted based on solar energy DNI values of 7.5 or greater occurring on more than 50 percent of lands in the AOI, and/or the development potential for wind energy was predicted to be “good” or better. These criteria were met on parcels proposed for exchange in the following AOIs:

- AOI: FL – Doña Ana (98 percent of lands within the AOI with a solar DNI of 7.5 or greater and 3,870 acres of the AOI occur within the Afton Solar Energy Zone)
- AOI: FL – Doña Ana Border (99 percent of lands within the AOI with a solar DNI of 7.5 or greater)
- AOI: FL – Grant/Luna Border (100 percent of lands within the AOI with a solar DNI of 7.5 or greater)
- AOI: FL – Grant Panhandle (173 acres with wind energy classifications of “good” or better and 100 percent of lands within the AOI with a solar DNI of 7.5 or greater)
- AOI: FL – Hidalgo (100 percent of lands within the AOI with a solar DNI of 7.5 or greater)
- AOI: FL – East Luna (100 percent of lands within the AOI with a solar DNI of 7.5 or greater)
- AOI: FL – West Luna (100 percent of lands within the AOI with a solar DNI of 7.5 or greater)
- AOI: FL – Otero (63 percent of lands within the AOI with a solar DNI of 7.5 or greater)
- AOI: FL – Upper Sierra (366 acres with predicted resource potential for development of wind energy classifications of “good” or better, 6 of which are classified as “outstanding”; 82 percent of lands within the AOI with a solar DNI of 7.5 or greater)
- AOI: FL – Middle Sierra (79 percent of lands within the AOI with a solar DNI of 7.5 or greater and a notable solar installation in the nearby Village of Williamsburg)
- AOI: FL – Lower Sierra (1,604 acres with wind energy classifications of “good” or better, 35 acres of which are classified as “outstanding”; also, one wind turbine installation within a 5-mile radius of parcels within the AOI)
- AOI: FL – East Socorro (100 percent of lands within the AOI with a solar DNI of 7.5 or greater)

Suitability for renewable energy development may be affected by other factors (i.e., slope) not addressed in the above criteria. Due to the presence of large areas in the region with suitability for wind and solar development based on DNI and wind energy classifications, it is unlikely that the land transfer would result in impacts on the BLM’s ability to develop these resources.

7.4 SLO EXCHANGE PARCELS

7.4.1 Future Mineral Development

Based on available fluid mineral potential information, and current levels of development in and around the AOIs, fluid mineral development is not anticipated to be affected by the proposed exchange. Surface

mining development may have some potential based on the location of active mines. AOIs within 5 miles of current mineral leases or mines are indicated in **Table 7.3**, below. Mineral materials may be located throughout the SLO exchange lands. As discussed in **Section 4.2.1**, transfer of SLO lands to the BLM could result in a change to the administrative procedures required for development of minerals on AOIs in the future, and the fees associated with development and production. As for BLM exchange lands, should additional analysis indicate a potential for development, parcels may not be carried forward in the final transfer. Additionally, SLO exchange parcels are primarily located within the Organ Mountains-Desert Peaks National Monument. Restrictions on development are present to protect the special features in this area. Wilderness areas within the monument would also limit development activity, except in cases where mineral rights represent a prior existing right. As a result, ability to develop these lands would be limited.

The presence of mineral materials is unlikely to affect the land transfer decision due to the abundance of this resource in the region. As a result, mineral materials information is not detailed below.

Table 7.3
Summary of Known Mineral Resources by AOI

AOI	Fluid Leasable (Oil and Gas)	Surface Mining
STL – North Doña Ana	—	Active mines are present within 5 miles of parcels within the AOI.
STL – South Doña Ana	—	Active mines are present within 5 miles of parcels within the AOI.
STL – Hidalgo	—	—
STL – Luna	—	—

7.4.2 Renewables

Renewable energy development can be examined based on the availability of the resource. The potential for solar and wind energy development was examined based on average wind speed data, as mapped by the National Renewable Energy Laboratory, and solar energy DNI. The resource potential for development of solar and/or wind energy was predicted based on solar energy DNI values of 7.5 or greater occurring on more than 50 percent of lands in the AOI, and/or development potential for wind energy was predicted to be “good” or better. These criteria were met on parcels proposed for exchange in the following AOIs:

- STL – North Doña Ana (450 acres with wind energy classifications of “good” or better, 1 acre of which is classified as “outstanding”; all lands have a solar DNI of 7.5 or greater)
- STL – South Doña Ana (95 acres with wind energy classifications of “good” or better; all lands have a solar DNI of 7.5 or greater)
- STL – Luna (all lands have a solar DNI of 7.5 or greater)

While renewable energy development may occur on BLM-administered lands, permitting under federal lands may face increased regulations, including requirements for NEPA review. As a result, transfer of land could result in increased time or costs for development, as compared with SLO lands. Additionally, as discussed for mineral development, SLO exchange parcels are primarily located within the Organ Mountains-Desert Peaks National Monument. Restrictions on development are present to protect the special features in this area. Wilderness areas within the monument would also limit development activity,

as renewable energy development is not compatible with management for wilderness characteristics. As a result, ability to develop these lands would be limited.

As discussed for BLM exchange lands, suitability for renewable energy development may be affected by other factors; it is unlikely the land transfer would result in impacts on the SLO's ability to develop these resources overall due to the abundance of lands with suitability for these resources.

7.4.3 Special Features

The SLO would dispose of several parcels of lands located within the Organ Mountains-Desert Peaks National Monument, which is currently managed by the BLM. These parcels are located with the North Doña Ana AOI. Currently within the monument are 10 wilderness areas that were established when the John D. Dingell, Jr. Conservation, Management, and Recreation Act of 2019 was signed into law in March 2019. The national monument encompasses close to 500,000 acres of land in three units, with a complex of six wilderness areas comprising 179,846 acres centered on the Potrillo Mountains southwest of Las Cruces. These wilderness areas represent the fourth-largest wilderness complex in New Mexico.

Lands in the Organ Mountains-Desert Peaks National Monument contain a diverse mix of Chihuahuan desert grasslands, sky island peaks, seasonal streams, rare native cacti, dramatic canyons, and historic remains. The transfer of lands from the state to the BLM within the monument will allow for more effective management by the BLM and result in a greater level of protection for these special features and related values.

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