









-  Project Location
-  30-mile Region of Interest
-  State Boundary
-  County Boundary
-  2010 Census Tract

Limited English Proficiency (LEP)
Percent at the Census Tract Level

-  0-10%
-  10-20%
-  20-30%

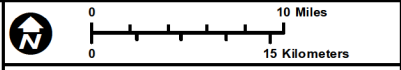


Figure 1.1-3
Limited English Proficiency
in the Region of Interest
Proposed Consolidated Interim
Spent Fuel Storage Facility



Prepared for: WCS	1 in = 10 miles
	Scale: 1:633,600
Prepared by: SL	Date: 4/4/2016

Data Source: US Census Bureau (2010)
 Aerial Source: NAIP (2014)
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Table 1-18: Housing Characteristics in the Region of Interest (2010; 2009–2013)

Housing Status	Lea County, NM	Eunice, NM	Hobbs, NM	Jal, NM	Andrews County, TX	Andrews, TX	Gaines County, TX	Seminole, TX	Winkler County, TX	Ector County, TX	New Mexico	Texas
Total housing units	24,919	1,264	12,900	1,009	5,814	4,379	6,301	2,506	3,027	53,027	901,388	9,977,436
Occupied housing units	22,236	1,073	11,629	788	5,259	3,999	5,606	2,275	2,578	48,688	791,395	8,922,933
Vacant housing units	2,683	191	1,271	221	555	380	695	231	449	4,339	109,993	1,054,503
Occupied housing units	22,236	1,073	11,629	788	5,259	3,999	5,606	2,275	2,578	48,688	791,395	8,922,933
Owner occupied	15,434	835	7,307	623	4,020	2,942	4,324	1,739	2,094	32,950	542,122	5,685,353
Renter occupied	6,802	238	4,322	165	1,239	1,057	1,282	536	484	15,738	249,273	3,237,580
Vacant housing units	2,683	191	1,271	221	555	380	695	231	449	4,339	109,993	1,054,503
For rent	867	50	606	29	94	86	144	59	46	1,800	22,150	394,310
For sale only	187	11	83	11	72	65	78	40	29	483	11,050	121,430
Sold, not occupied	46	8	16	1	52	30	54	22	47	491	2,143	30,437
Rented, not occupied	47	8	20	6	13	11	13	3	14	108	1,303	16,509
For seasonal, recreational, or occasional use	217	14	89	12	80	42	73	24	40	240	36,612	208,733
For migratory workers	13	0	2	0	4	3	17	2	2	21	229	2,209
Other vacant	1,306	100	455	162	240	143	316	81	271	1,196	36,506	280,875
Median Value for Owner- Occupied Housing Units*	97,200	90,300	98,200	63,900	88,600	79,600	93,000	92,100	45,100	91,200	160,000	128,900
Median Rent **	734	651	812	671	769	793	657	863	575	789	758	851
Occupied housing units	22,236	1,073	11,629	788	5,259	3,999	5,606	2,275	2,578	48,688	791,395	8,922,933
Owner-occupied housing units	15,434	835	7,307	623	4,020	2,942	4,324	1,739	2,094	32,950	542,122	5,685,353
White alone householder	8,773	498	3,833	382	2,334	1,652	2,850	1,115	1,081	17,187	282,929	3,435,141
Black or African American alone householder	424	9	337	3	44	40	52	22	47	903	6,612	478,340
American Indian and Alaska Native alone householder	87	2	41	2	33	20	7	5	5	175	33,771	19,840
Asian alone householder	52	0	35	1	16	12	7	7	1	198	5,341	188,010
Native Hawaiian and Other Pacific Islander alone householder	5	1	3	0	0	0	0	0	0	5	225	2,553
Some Other Race alone householder	6	0	1	0	4	4	2	2	5	14	899	4,832
Two or More Races householder	101	5	41	5	22	18	31	15	11	182	4,821	46,313
Hispanic or Latino householder	5,986	320	3,016	230	1,567	1,196	1,375	573	944	14,286	207,524	1,510,324

Table 1-18: Housing Characteristics in the Region of Interest (2010; 2009–2013)

Housing Status	Lea County, NM	Eunice, NM	Hobbs, NM	Jal, NM	Andrews County, TX	Andrews, TX	Gaines County, TX	Seminole, TX	Winkler County, TX	Ector County, TX	New Mexico	Texas
Renter-occupied housing units	6,802	238	4,322	165	1,239	1,057	1,282	536	484	15,738	249,273	3,237,580
White alone householder	3,000	124	1,818	83	639	542	693	281	257	7,065	109,350	1,368,439
Black or African American alone householder	469	4	408	3	25	24	35	11	14	1,206	7,950	589,768
American Indian and Alaska Native alone householder	60	3	38	2	3	2	5	4	4	99	17,743	12,232
Asian alone householder	45	1	33	0	14	13	3	2	4	134	3,701	115,429
Native Hawaiian and Other Pacific Islander alone householder	2	0	1	0	1	1	0	0	0	21	207	2,849
Some Other Race alone householder	8	2	5	0	1	1	0	0	4	15	477	4,362
Two or More Races householder	48	0	35	0	6	3	1	0	2	156	3,921	40,668
Hispanic or Latino householder	3,170	104	1,984	77	550	471	545	238	199	7,042	105,924	1,103,833

Source U.S. Census Bureau, 2010 QT-H1

*ACS 2009–2013 Table B25077.

** ACS 2009–2013 Table DP04.

1.1.5 Households by Type

Table 1-19 indicates that in 2010, the majority of households were owner-occupied and the largest groups of the householders were the age groups of 45 to 54 years and 65 years and over. The average household size was 2.8 persons for the ROI.

As defined by the Census, “Contract Rent” and “Gross Rent” are somewhat different. For the ROI, the data are virtually the same.

Contract rent: The monthly rent agreed to or contracted for, regardless of any furnishing, utilities, fees, meals, or services that may be included. For vacant units, it is the monthly rent asked for the rental unit at the time of the interview.

Within the ROI, 31,863 or 30.6 percent of housing units were renter-occupied. **Tables 1-20** and **1-21** show the median rent asked and the range of contract and gross rent for the renter-occupied housing. The highest median contract rent asked was within Seminole, Texas (\$702 per month), higher than the Texas state average of \$688 and even higher than the state average for New Mexico at \$635. The lowest median contract rent asked was in Winkler County, Texas, at \$391 per month.

Gross rent: The amount of the contract rent plus the estimated average of monthly cost of utilities (electricity, gas, water, and sewer) and fuels (oil, coal, kerosene, wood, etc.) if these are paid for by the renter (or paid for the renter by someone else). Gross rent is intended to eliminate differentials that result from varying practices with respect to the inclusion of utilities and fuels in the rental payment.

The highest gross rent was within Seminole, Texas (\$863 per month), higher than the New Mexico and Texas state medians of \$758 and \$851, respectively. The lowest median gross rent was also in Winkler County at \$575 per month.

Table 1-19: Tenure, Household Size and Age of Householder in the Region of Interest (2010)

Housing Status	Lea County, New Mexico	Eunice, New Mexico	Hobbs, New Mexico	Jal, New Mexico	Andrews County, Texas	Andrews, Texas	Gaines County, Texas	Seminole, Texas	Winkler County, Texas	Ector County, Texas	New Mexico	Texas
Total housing units	24,919	1,264	12,900	1,009	5,814	4,379	6,301	2,506	3,027	53,027	901,388	9,977,436
Occupied housing units	22,236	1,073	11,629	788	5,259	3,999	5,606	2,275	2,578	48,688	791,395	8,922,933
Vacant housing units	2,683	191	1,271	221	555	380	695	231	449	4,339	109,993	1,054,503
Occupied housing units	22,236	1,073	11,629	788	5,259	3,999	5,606	2,275	2,578	48,688	791,395	8,922,933
Owner occupied	15,434	835	7,307	623	4,020	2,942	4,324	1,739	2,094	32,950	542,122	5,685,353
Renter occupied	6,802	238	4,322	165	1,239	1,057	1,282	536	484	15,738	249,273	3,237,580
Average household size**	2.82	2.72	2.81	2.6	2.80	2.75	3.11	2.79	2.72	2.77	2.55	2.75
Age of Householder												
Owner-occupied housing units*	15,434	835	7,307	623	4,020	2,942	4,324	1,739	2,094	32,950	542,122	5,685,353
15 to 24 years	472	32	237	18	134	110	182	66	61	988	10,185	77,434
25 to 34 years	2,272	144	1,148	64	563	439	750	290	298	4,846	56,531	659,840
35 to 44 years	2,514	131	1,201	93	685	503	769	285	329	5,644	83,630	1,113,632
45 to 54 years	3,419	195	1,563	133	942	658	1,024	394	492	7,535	121,364	1,360,235
55 to 64 years	2,980	150	1,352	114	773	537	721	300	409	6,477	123,328	1,167,002
65 years and over	3,777	183	1,806	201	923	695	878	404	505	7,460	147,084	1,307,210
Renter-occupied housing units*	6,802	238	4,322	165	1,239	1,057	1,282	536	484	15,738	249,273	3,237,580
15 to 24 years	945	34	653	22	175	150	185	80	55	2,475	33,360	431,700
25 to 34 years	1,812	44	1,168	34	325	282	353	149	113	4,349	63,080	931,814
35 to 44 years	1,342	46	806	40	247	210	259	105	90	2,898	45,852	672,190
45 to 54 years	1,156	49	753	24	225	179	207	85	94	2,647	43,130	534,003
55 to 64 years	785	41	479	27	116	103	141	61	58	1,679	31,841	336,353
65 years and over	762	24	463	18	151	133	137	56	74	1,690	32,010	331,520

Source: U.S. Census Bureau, 2010 Table QT-H1;

*Table QT-H2;

**DP-1.

Table 1-20: Contract Rent (in Dollars) in the Region on Interest (2009–2013)

Housing Value	Lea County, New Mexico	Eunice, New Mexico	Hobbs, New Mexico	Jal, New Mexico	Andrews County, Texas	Andrews, Texas	Gaines County, Texas	Seminole, Texas	Winkler County, Texas	Ector County, Texas	New Mexico	Texas
Median contract rent*	584	516	633	422	604	617	478	702	391	612	635	688
Total Renter-Occupied Housing	6,336	341	3,654	190	1,140	1,050	1,257	481	530	17,140	238,594	3,262,919
With cash rent:	5,606	310	3,495	163	983	923	944	377	390	15,231	219,395	3,076,712
Less than \$100	44	0	34	0	0	0	7	0	25	199	3,814	37,725
\$100 to \$149	155	0	83	4	12	12	31	8	14	219	3,612	38,706
\$150 to \$199	53	6	29	0	15	15	91	48	13	170	4,579	38,226
\$200 to \$249	189	14	92	7	10	10	86	5	4	266	5,967	50,634
\$250 to \$299	161	14	52	0	41	41	72	0	21	277	5,450	48,686
\$300 to \$349	271	12	98	19	203	188	0	0	51	595	7,417	73,240
\$350 to \$399	144	44	37	42	59	59	101	60	82	670	8,945	85,203
\$400 to \$449	555	31	329	22	54	45	64	14	43	1,143	13,132	142,679
\$450 to \$499	351	11	203	18	21	21	36	4	44	770	13,284	163,943
\$500 to \$549	626	72	353	19	16	16	70	32	36	1,765	17,674	236,220
\$550 to \$599	372	36	274	6	53	26	130	0	0	1,273	14,643	218,151
\$600 to \$649	453	8	245	10	91	82	30	0	0	1,092	16,065	231,574
\$650 to \$699	287	36	110	5	14	14	16	16	3	792	14,410	229,342
\$700 to \$749	322	12	158	7	94	94	42	42	6	1,380	13,892	217,333
\$750 to \$799	213	0	175	4	47	47	18	18	0	739	10,001	177,332
\$800 to \$899	567	14	510	0	134	134	64	64	0	1,447	19,986	306,766
\$900 to \$999	267	0	177	0	33	33	0	0	0	1,004	13,020	208,120
\$1,000 to \$1,249	323	0	283	0	86	86	73	53	34	916	20,583	300,189
\$1,250 to \$1,499	128	0	128	0	0	0	13	13	14	139	6,439	134,912
\$1,500 to \$1,999	39	0	39	0	0	0	0	0	0	136	4,393	91,251
\$2,000 or more	86	0	86	0	0	0	0	0	0	239	2,089	46,480
No cash rent	730	31	159	27	157	127	313	104	140	1,909	19,199	186,207

Source: ACS 2009–2013 Table B25056 and *B25058.

Table 1-21: Gross Rent (in Dollars) in the Region of Interest (2009–2013)

	Lea County, New Mexico	Eunice, New Mexico	Hobbs, New Mexico	Jal, New Mexico	Andrews County, Texas	Andrews, Texas	Gaines County, Texas	Seminole, Texas	Winkler County, Texas	Ector County, Texas	New Mexico	Texas
Median gross rent*	\$734	\$651	\$812	\$671	\$769	\$793	\$657	\$863	\$575	\$789	\$758	\$851
Total Renter Occupied Housing	6,336	341	3,654	190	1,140	1,050	1,257	481	530	17,140	238,594	3,262,919
With cash rent	5,606	310	3,495	163	983	923	944	377	390	15,231	219,395	3,076,712
Less than \$100	34	0	34	0	0	0	0	0	0	10	977	10,250
\$100 to \$149	44	0	34	0	0	0	2	0	5	36	1,119	10,539
\$150 to \$199	38	0	38	0	0	0	41	0	16	141	2,675	22,622
\$200 to \$249	126	14	85	0	25	25	41	4	20	188	4,740	35,471
\$250 to \$299	98	6	15	0	12	12	85	44	0	256	3,614	34,296
\$300 to \$349	151	0	88	7	0	0	42	13	11	173	3,951	35,011
\$350 to \$399	68	0	0	4	34	34	50	0	25	255	5,727	40,493
\$400 to \$449	165	28	38	14	123	123	76	24	3	434	8,338	57,750
\$450 to \$499	298	12	198	5	56	56	68	36	30	425	9,376	77,404
\$500 to \$549	235	23	115	25	0	0	13	0	47	642	11,282	111,088
\$550 to \$599	464	50	207	7	84	78	26	14	77	1,028	13,601	147,051
\$600 to \$649	369	21	234	8	23	20	17	0	46	1,033	13,890	175,526
\$650 to \$699	491	67	218	28	26	26	77	36	12	1,311	14,242	190,816
\$700 to \$749	323	0	194	17	94	71	4	0	10	1,015	14,086	200,748
\$750 to \$799	348	37	190	25	38	19	101	0	11	861	13,589	197,467
\$800 to \$899	720	0	480	12	69	69	77	28	20	1,868	23,876	376,340
\$900 to \$999	552	30	446	4	92	83	65	39	0	1,294	18,074	316,592
\$1,000 to \$1,249	639	22	467	7	185	185	55	55	37	2,764	29,851	515,231
\$1,250 to \$1,499	245	0	226	0	30	30	51	31	0	837	14,258	253,043
\$1,500 to \$1,999	108	0	98	0	92	92	53	53	20	399	8,836	194,629
\$2,000 or more	90	0	90	0	0	0	0	0	0	261	3,293	74,345
No cash rent	730	31	159	27	157	127	313	104	140	1,909	19,199	186,207

Source: ACS 2009–2013 Table B25063 and *B25064.

1.1.6 Income and Poverty Status

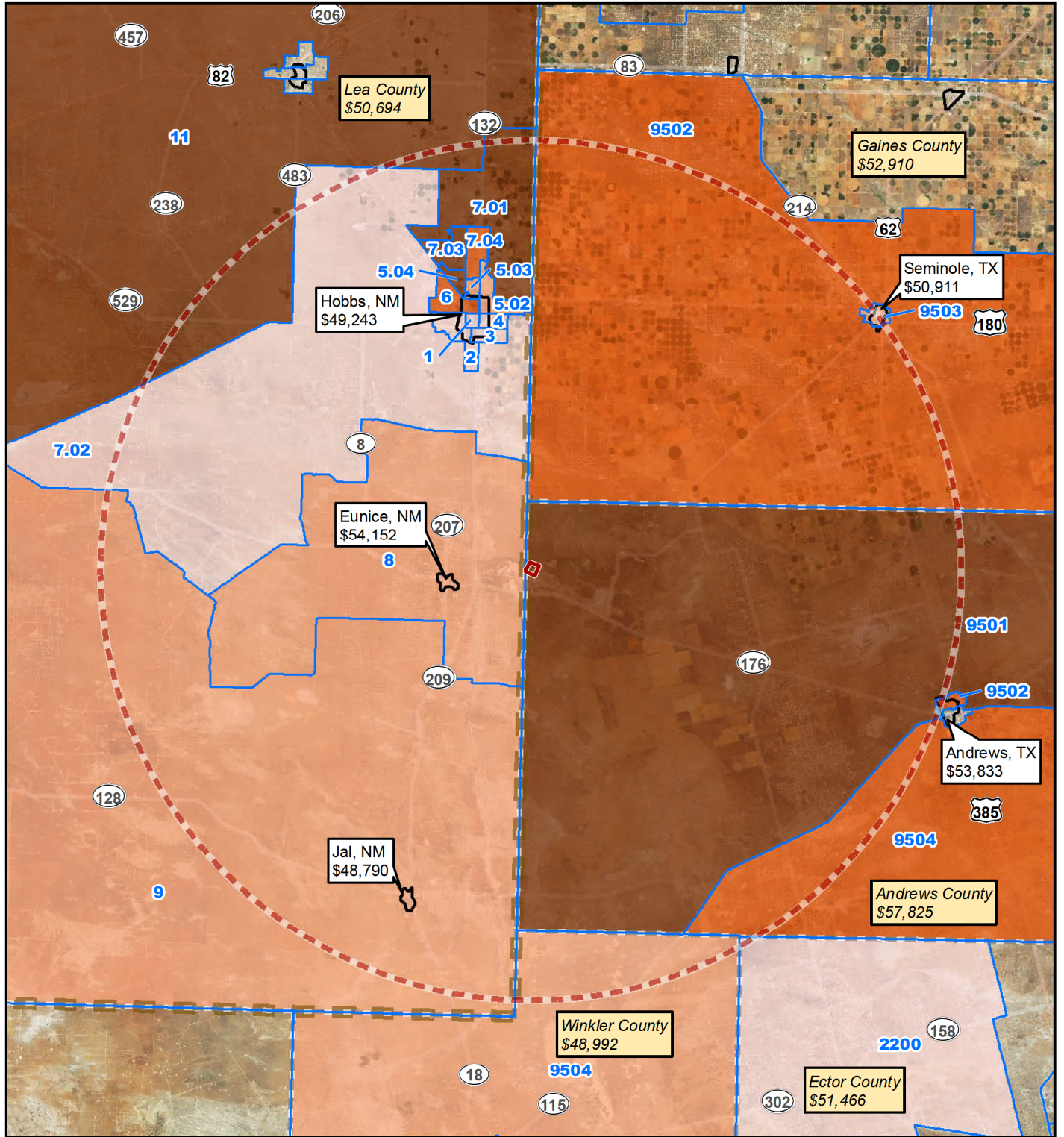
According to 2009–2013 American Community Survey data, the highest median household income for the ROI was in Andrews County (\$57,825) at the county level while Jal, New Mexico, located in Lea County had the lowest median household income of \$48,790 at the city level (**Table 1-22**). Within the three census tracts in Andrews, Texas, the median household incomes ranged from \$61,719 (CT 9504) to \$88,250 (CT 9501). Ector County has one census tract and the median household income is \$36,927. Seminole, Texas, has two census tracts and median household incomes were \$46,512 (CT 9503) and \$64,024 (CT 9502), respectively. Winkler County, Texas, has one census tract and the median household income is \$49,583. Jal, Lea County, New Mexico, has 15 census tracts within the ROI. Median household incomes ranged \$29,882 in CT 3 and \$108,922 in CT 7.03 (see **Figure 1.1-4, Median Household Income in the Region of Interest**).

The median household income for geographies within the ROI may be compared to poverty status as defined by the U.S. Census Bureau. Appendix C of NUREG-1748 states that the U.S. Census Bureau's Current Population Reports, Series P-60 on Income and Poverty, should be utilized for this purpose. The U.S. Census uses an income threshold that varies by family size and composition to determine who is in poverty. If the family's total income is less than the family's threshold, then the family and every individual is considered in poverty. The preliminary estimate of the poverty threshold for 2014 for a family of four is \$24,221 (USCB 2015). The final 2014 thresholds was released in September 2015 and that threshold was \$24,036 (USCB 2015). U.S. Department of Health and Human Services (DHHS) also publishes a poverty guideline. For comparison purposes, the 2015 DHHS poverty guideline is \$24,250 for a family of four.

The median household incomes for all the counties and cities within the ROI are above the poverty thresholds established by the USCB and the DHHS.

Table 1-22: Median Household Income (2009–2013)			
Census 2010 Geography	Total Households	Median Household Income	2015 DHHS Poverty Guideline
Andrews County, TX	5,217	\$57,825	\$24,250
Andrews, TX	4,082	\$53,833	
Census tract 9501	639	\$88,250	
Census tract 9502	2,419	\$63,125	
Census tract 9504	811	\$61,719	
Ector County, TX	49,962	\$51,466	
Census tract 22	1,012	\$36,927	
Gaines County, TX	5,437	\$52,910	
Seminole, TX	2,175	\$50,911	
Census tract 9502	2,376	\$64,024	
Census tract 9503	1,862	\$46,512	
Winkler County, TX	2,709	\$48,992	
Census tract 9504	570	\$49,583	
Lea County, NM	21,126	\$50,694	
Eunice, NM	1,151	\$54,152	
Hobbs, NM	10,995	\$49,243	
Jal, NM	730	\$48,790	
Census tract 1	829	\$32,052	
Census tract 2	992	\$39,667	
Census tract 3	1,141	\$29,882	
Census tract 4	1,109	\$39,917	
Census tract 5.02	2,097	\$52,236	
Census tract 5.03	1,367	\$55,150	
Census tract 5.04	1,508	\$81,111	
Census tract 6	2,085	\$60,432	
Census tract 7.01	512	\$64,717	
Census tract 7.02	622	\$45,682	
Census tract 7.03	774	\$108,922	
Census tract 7.04	997	\$56,875	
Census tract 8	1,278	\$56,000	
Census tract 9	779	\$47,702	
Census tract 11	1,571	\$65,524	

Source: U.S. Census Bureau, 2009–2013 American Community Survey, Tables B11001 and B19013. ACS data are estimates; they are not counts. Income data is provided in 2013 inflation adjusted dollars.



- | | | | |
|--|----------------------------|--|--------------------------------|
| | Project Location | | Median Household Income |
| | 30-mile Region of Interest | | \$29,882 - \$45,682 |
| | State Boundary | | \$45,683 - \$56,000 |
| | County Boundary | | \$56,001 - \$64,024 |
| | 2010 Census Tract | | \$64,025 - \$108,922 |

Note: no census tracts within the ROI have median household incomes below any of the 2014 Poverty Thresholds developed by the Census or the 2015 poverty guidelines developed by the Department of Health and Human Services

Data Source: US Census Bureau (2010)

Aerial Source: NAIP (2014)

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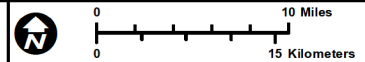


Figure 1.1-4
Median Household Income
in the Region of Interest
Proposed Consolidated Interim
Spent Fuel Storage Facility



Prepared for: WCS	1 in = 10 miles
Prepared by: SL	Scale: 1:633,600
	Date: 4/4/2016

1.1.7 Population in Poverty within ROI

As previously mentioned (see **Section 1.1.6**), no total population for any city or county within the ROI has median incomes that are within the poverty thresholds established by the U.S. Census Bureau or the Department of Health and Human Services. This section did identify there were percentages of families and individuals living below poverty levels, with highest percentages in Gaines County, Texas. A review of population data was performed to assess comparisons of this data and population data.

The population below poverty level within the ROI is summarized in **Table 1-23**. In Andrews, Texas, there are three census tracts totaling with 11,308 individuals within these tracts for whom poverty status was determined, 5.1 to 9.6 percent of the population in the past 12 months were below poverty level. In Ector County, Texas, 909 individuals in census tract 22 were below poverty level, approximately 27.5 percent of the population whom poverty status was determined. Seminole, Texas, contained two census tracts within the ROI and percentages of individuals below poverty level ranged between 12.6 and 18.0 percent. Of the 1,549 individuals in Winkler County, Texas, in CT 9504, 13.2 percent were determined to be below poverty level in the past 12 months. Within Jal in Lea County, New Mexico, there were 15 census tracts with 52,502 individuals whom poverty status was determined. Of these individuals, 7,084 individuals were below the poverty level and depending on the census tract, percentages ranged from 0.4 (CT 7.03) to 27.1 (CT 4) percent.

1.1.8 Employment and Unemployment Characteristics

Table 1-24 shows the employment status of persons over the age of 16 within the ROI. Within these populations, the employment rate ranges from the lowest of 50.6 percent in Jal, New Mexico, to the highest, 63.0 percent in Ector County, Texas. These employment rates are lower than the state employment percentage in New Mexico (54.4 percent) and higher than in Texas (59.4 percent). The unemployment percentages range from the highest (8.4 percent) in Lea County, New Mexico, to the lowest unemployment percentage of 3.5 in Winkler County, Texas. These rates are slightly better (lower) with the State of New Mexico's unemployment rate of 9.7 percent and considerably better (lower) than State of Texas' rate of 8.1 percent.

Within the ROI, the population with the highest percentage employed is Native Hawaiian/Other Pacific Islander (100%) in Gaines and Ector counties, and Seminole, Texas, however that is for a total of 35 persons in Ector County, and 48 persons in Gaines County and Seminole, Texas, which is a fraction of the total population of 104,044 (Ector County), 12,468 (Gaines County) and 5,080 (Seminole). In comparison, the population with the highest percentage of unemployed is Black and African American (100%) in Jal, New Mexico. As with the number of employed, the number of persons within this population (15) is relatively small as compared to the total population of 1,612.

Table 1-23: Population in Poverty (2009–2013)			
Census 2010 Geography	Total Population For Whom Poverty Status is Determined	Population with Income in the past 12 months below poverty level	Percent of Population with Income in the past 12 months below poverty level
Andrews County, TX	15,379	1,926	12.5%
Andrews, TX	11,537	1,613	14%
Census tract 9501	1,949	99	5.1%
Census tract 9502	6,584	620	9.4%
Census tract 9504	2,775	266	9.6%
Ector County, TX	138,967	22,080	15.9%
Census tract 22	3,309	909	27.5%
Gaines County, TX	17,907	3,000	16.8%
Seminole, TX	6,558	997	15.2%
Census tract 9502	8,660	1,561	18%
Census tract 9503	5,597	704	12.6%
Winkler County, TX	7,121	909	12.8%
Census tract 9504	1,549	204	13.2%
Lea County, NM	63,552	9,507	15%
Eunice, NM	2,973	303	10.2%
Hobbs, NM	33,228	5,542	16.7%
Jal, NM	2,056	163	7.9%
Census tract 1	2,506	543	21.7%
Census tract 2	3,321	756	22.8%
Census tract 3	3,823	949	24.8%
Census tract 4	3,641	987	27.1%
Census tract 5.02	6,203	977	15.8%
Census tract 5.03	3,823	539	14.1%
Census tract 5.04	3,587	318	8.9%
Census tract 6	6,589	521	7.9%
Census tract 7.01	1,726	247	14.3%
Census tract 7.02	1,984	199	10%
Census tract 7.03	2,227	9	0.4%
Census tract 7.04	2,901	246	8.5%
Census tract 8	3,210	329	10.2%
Census tract 9	2,158	194	9%
Census tract 11	4,803	270	5.6%

Source: U.S. Census Bureau, 2009–2013 American Community Survey, Table B17001.
ACS data are estimates; they are not counts.

Table 1-24: Employment Status by Race/Ethnicity in the Region of Interest (2009–2013)

Subject	Lea County, New Mexico	Eunice, New Mexico	Hobbs, New Mexico	Jal, New Mexico	Andrews County, Texas	Andrews, Texas	Gaines County, Texas	Seminole, Texas	Winkler County, Texas	Ector County, Texas	New Mexico	Texas
Population 16 years and over	48,357	2,332	25,092	1,612	11,457	8,535	12,468	5,080	5,352	104,044	1,612,730	19,468,136
<i>Percent of Persons Employed/Unemployment</i>	56.4%/8.4%	62.0%/5.8%	55.9%/7.9%	50.6%/4.6%	61.5%/5.9%	59.4%/4.9%	59.3%/5.8%	60.5%/6.8%	59.1%/3.5%	63.0%/6.2%	54.4%/9.7%	59.4%/8.1%
White alone, not Hispanic or Latino	22,628	1,225	10,850	978	5,765	4,251	7,560	2,933	2,465	46,040	711,032	9,444,102
<i>Percent of Persons Employed/Unemployment</i>	56.7%/6.8%	61.3%/6.6%	54.8%/7.0%	49.1%/5.0%	60.7%/4.4%	60.0%/3.8%	59.2%/5.2%	63.1%/5.2%	57.0%/4.9%	62.4%/4.7%	54.9%/7.0%	59.6%/6.4%
Black or African American	1,598	0	1,231	15	214	200	137	42	117	4,249	31,856	2,282,951
<i>Percent of Persons Employed/Unemployment</i>	55.3%/10.2%	-/-	55.5%/8.0%	0.0%/100.0%	54.7%/24.5%	51.5%/27.0%	20.4%/0.0%	9.5%/0.0%	53.8%/0.0%	51.1%/9.5%	52.9%/12.5%	55.5%/13.3%
American Indian and Alaska Native	481	0	363	11	290	268	181	125	43	671	139,355	98,684
<i>Percent of Persons Employed/Unemployment</i>	45.9%/12.6%	-/-	41.3%/17.1%	63.6%/0.0%	89.7%/0.0%	88.8%/0.0%	59.1%/1.8%	59.2%/0.0%	65.1%/26.3%	68.7%/0.0%	45.1%/16.2%	57.4%/10.8%
Asian	176	0	151	0	138	138	32	5	28	899	22,841	797,419
<i>Percent of Persons Employed/Unemployment</i>	67.6%/0.0%	-/-	78.8%/0.0%	-/-	69.6%/0.0%	69.6%/0.0%	0.0%/-	0.0%/-	67.9%/0.0%	66.1%/5.3%	61.8%/7.4%	62.9%/6.3%
Native Hawaiian and Other Pacific Islander	0	0	0	0	0	0	48	48	0	35	1,162	15,834
<i>Percent of Persons Employed/Unemployment</i>	-/-	-/-	-/-	-/-	-/-	-/-	100.0%/0.0%	100.0%/0.0%	-/-	100.0%/0.0%	59.0%/2.4%	56.2%/12.6%
Some other race	2,596	169	1,454	6	498	484	463	135	226	5,479	175,144	1,269,528
<i>Percent of Persons Employed/Unemployment</i>	65.8%/9.4%	60.4%/20.3%	62.7%/11.8%	50.0%/0.0%	41.2%/0.0%	41.7%/0.0%	67.0%/0.0%	71.1%/0.0%	56.2%/7.3%	59.5%/11.3%	56.8%/10.8%	62.5%/9.4%
Two or more races	1,110	42	568	53	159	121	246	157	148	2,287	37,715	337,241
<i>Percent of Persons Employed/Unemployment</i>	54.9%/6.9%	85.7%/0.0%	39.3%/16.8%	47.2%/0.0%	66.0%/8.7%	60.3%/8.8%	50.8%/12.6%	34.4%/0.0%	73.0%/2.7%	62.5%/7.2%	54.4%/12.1%	58.0%/11.0%
Hispanic or Latino origin (of any race)	22,739	1,059	12,211	567	5,355	3,990	4,541	2,010	2,707	51,513	697,273	6,697,763
<i>Percent of Persons Employed/Unemployment</i>	55.9%/10.1%	61.8%/5.2%	57.0%/8.7%	55.0%/1.9%	61.8%/7.5%	58.2%/6.3%	60.3%/6.6%	57.0%/9.6%	61.4%/2.5%	64.3%/7.4%	55.4%/11.3%	60.1%/8.9%

Source: ACS 2009–2013 Table S2301.

1.1.9 Employment by Industry Sector

Employment within all counties of the ROI is primarily within the industries of 1) educational services, and health care and social assistance (18.1%); 2) agriculture, forestry, fishing, hunting, and mining (16.4%); and 3) retail trade (10.1%) (see **Table 1-25**). The lowest percentage of persons employed is within the information industry (1.2%). The industry percentages are consistent between the counties and the states for wholesale trade, information, and other services, except public administration. Agriculture, forestry, fishing and hunting, and mining had the greatest variability (16.4% for the counties when compared to 4.4% for New Mexico and 3.1% for Texas) (ACS 2013).

Employment in Lea County, New Mexico, is primarily through the industries of 1) agriculture, forestry, fishing and hunting, and mining (21.2 percent); 2) educational services, and health care and social assistance (16.9%); and 3) retail trade (9.5 percent) (ACS 2013). The highest percentage of industry employment within Andrews, Gaines, and Winkler Counties, Texas, was agriculture, forestry, fishing and hunting, and mining (ranging from 21.4 to 27.6 percent) and Ector County industry employment being highest in educational services, health care and social assistance (18.2 percent). These percentages are higher than the state of Texas (3.1 percent). The percentage for all counties combined within the ROI for the agriculture, forestry, fishing and hunting, and mining industry is 16.4 percent. The information industry was 1.1 percent in Lea County, New Mexico, and ranged between 0.4 to 1.4 percent within Andrews, Ector, Gaines, and Winkler Counties, Texas. These percentages are comparable to their respective states and combined counties within the ROI (ACS 2013).

American Community Survey data from 2009 through 2013 contain unemployment information for the census tract level (see **Table 1-26**). In the ROI, there is some variation in the unemployment rate in the civilian labor force. The unemployment rate in Andrews, Texas, ranges from 1.9 percent (CT 9501) to 10.2 percent (CT 9504) with unemployment in Andrews, Texas, at 4.9 percent and 5.9 percent for Andrews County, Texas. Five armed forces personnel were within Andrews, Texas, and 3,195 individuals were not in the labor force. Andrews County, Texas, had 3,965 individuals not in the labor force.

Ector County, Texas, only had one census tract (CT 22) in the ROI with 5.3 percent unemployed in the civilian labor force, no armed forces personnel, and 1,013 individuals not in the labor force. Ector County, Texas, as a whole had 6.2 percent unemployment, 35 armed forces personnel, and 34,102 individuals not in the labor force.

Gaines County, Texas, has two census tracts within Seminole, Texas (CT 9502 and 9503). The rates in these areas ranged from 3.8 percent (CT 9502) to 9.1 percent (CT 9503) with Gaines County, Texas, at 5.8 percent. There were no armed forces personnel in either Gaines County, Texas, or Seminole, Texas, with individuals not in the labor force ranging from 1,666 individuals to 4,620 individuals.

Table 1-25: Employment by Industry Sector in the Region of Interest (2009–2013)

INDUSTRY	Lea County, New Mexico	Eunice, New Mexico	Hobbs, New Mexico	Jal, New Mexico	Andrews County, Texas	Andrews, Texas	Gaines County, Texas	Seminole, Texas	Winkler County, Texas	Ector County, Texas	New Mexico	Texas	Counties Combined (New Mexico, Texas)
Civilian employed population 16 years and over	27,256	1,447	14,025	816	7,048	5,072	7,390	3,072	3,165	65,574	876,823	11,569,041	110,433
Agriculture, forestry, fishing and hunting, and mining	5,765	368	2,536	140	1,942	1,410	1,601	412	677	8,072	38,237	359,977	18,057
<i>Percent of Total</i>	21.2%	25.4%	18.1%	17.2%	27.6%	27.8%	21.7%	13.4%	21.4%	12.3%	4.4%	3.1%	16.4%
Construction	2,390	123	1,485	79	488	341	1,133	341	417	5,353	62,241	914,460	9,781
<i>Percent of Total</i>	8.8%	8.5%	10.6%	9.7%	6.9%	6.7%	15.3%	11.1%	13.2%	8.2%	7.1%	7.9%	8.9%
Manufacturing	1,378	79	622	69	455	374	335	131	89	5,978	44,362	1,083,079	8,235
<i>Percent of Total</i>	5.1%	5.5%	4.4%	8.5%	6.5%	7.4%	4.5%	4.3%	2.8%	9.1%	5.1%	9.4%	7.5%
Wholesale trade	1,053	67	407	15	208	116	155	99	102	2,913	18,578	347,982	4,431
<i>Percent of Total</i>	3.9%	4.6%	2.9%	1.8%	3%	2.3%	2.1%	3.2%	3.2%	4.4%	2.1%	3%	4.0%
Retail trade	2,593	71	1,559	84	375	269	734	272	253	7,145	98,496	1,345,939	11,100
<i>Percent of Total</i>	9.5%	4.9%	11.1%	10.3%	5.3%	5.3%	9.9%	8.9%	8%	10.9%	11.2%	11.6%	10.1%
Transportation and warehousing, and utilities	2,124	119	911	151	506	406	618	177	282	3,408	39,445	629,548	6,938
<i>Percent of Total</i>	7.8%	8.2%	6.5%	18.5%	7.2%	8%	8.4%	5.8%	8.9%	5.2%	4.5%	5.4%	6.3%
Information	293	0	185	8	51	29	32	9	13	908	14,651	213,097	1,297
<i>Percent of Total</i>	1.1%	0%	1.3%	1%	0.7%	0.6%	0.4%	0.3%	0.4%	1.4%	1.7%	1.8%	1.2%
Finance and insurance, and real estate and rental and leasing	963	34	535	16	123	63	121	21	112	2,903	40,799	769,050	4,222
<i>Percent of Total</i>	3.5%	2.3%	3.8%	2%	1.7%	1.2%	1.6%	0.7%	3.5%	4.4%	4.7%	6.6%	3.8%
Professional, scientific, and management, and administrative and waste management services	1,554	88	942	38	426	326	301	211	116	4,284	95,063	1,251,791	6,681
<i>Percent of Total</i>	5.7%	6.1%	6.7%	4.7%	6%	6.4%	4.1%	6.9%	3.7%	6.5%	10.8%	10.8%	6.1%
Educational services, and health care and social assistance	4,616	256	2,329	137	1,561	1,119	1,233	810	609	11,962	218,046	2,514,011	19,981
<i>Percent of Total</i>	16.9%	17.7%	16.6%	16.8%	22.1%	22.1%	16.7%	26.4%	19.2%	18.2%	24.9%	21.7%	18.1%
Arts, entertainment, and recreation, and accommodation and food services	1,830	118	1,108	4	491	306	402	276	244	6,633	94,257	1,001,258	9,600
<i>Percent of Total</i>	6.7%	8.2%	7.9%	0.5%	7%	6%	5.4%	9%	7.7%	10.1%	10.7%	8.7%	8.7%
Other services, except public administration	1,379	84	796	40	325	241	581	219	103	4,338	42,250	621,998	6,726
<i>Percent of Total</i>	5.1%	5.8%	5.7%	4.9%	4.6%	4.8%	7.9%	7.1%	3.3%	6.6%	4.8%	5.4%	6.1%
Public administration	1,318	40	610	35	97	72	144	94	148	1,677	70,398	516,851	3,384
<i>Percent of Total</i>	4.8%	2.8%	4.3%	4.3%	1.4%	1.4%	1.9%	3.1%	4.7%	2.6%	8%	4.5%	3.06%

Source: ACS 2009–2013 Table DP03.

Winkler County, Texas, has one census tract (CT 9504) within the ROI and had eight percent of the labor force as unemployed with no armed services personnel and 478 individuals not in the labor force. Within the county as a whole, there was 3.5 percent unemployed with 2,072 individuals not in the labor force.

Lea County, New Mexico, has 15 census tracts within the ROI, all within Jal, New Mexico. The percentage of unemployed in the civilian labor force ranged from the highest (18.5 percent in CT 7.02) to the lowest (4.2 percent in CT 7.03). Twenty armed services personnel were identified in CT 5.02 and five in CT 7.02, which constituted a majority of the armed services personnel in Lea County, New Mexico (34 individuals). The number of individuals not in the labor force ranged from 389 (CT 7.01) to 1,899 (CT 7.02). Eunice, New Mexico, had 89 individuals (5.8 percent) unemployed with no armed forces personnel, and 796 individuals not in the labor force. Hobbs, New Mexico, had 1,195 individuals (7.9 percent) unemployed, 20 armed services personnel, and 9,852 individuals not in the labor force. **Table 1-26** provides data regarding employment status within the ROI.

The top three industries in terms of employment in the Fourth Quarter of 2014 for Andrews County were 1) Natural Resources and Mining (2,055 employees); 2) Trade, Transport, and Utilities (1,527) and 3) Education and Health Services (1,143). Ector County top industries included 1) Trade, Transportation, and Utilities (18,235), 2) Education and Health Services (13,091) and 3) Natural Resources and Mining (12,429). Gaines County top industries includes 1) Natural Resources and Mining (2,239), 2) Trade, Transportation and Utilities (1,124) and 3) Construction (435). Winkler County top industries includes 1) Natural Resources and Mining (863), 2) Trade, Transportation and Utilities (555), and 3) Education and Health Services (496) (see **Table 1-27**) (TWC 2015).

There is general consistency when comparing employment industries between the recent Texas Workforce Commission 2014 information and the American Community Survey from 2009–2013. The primary industries within the ROI are agricultural and mining based. Educational and health-related industries are very prevalent, along with trade-related industries.

Table 1-26: Employment Status in the Region of Interest (2009–2013)								
Census 2010 Geography	Popula- tion 16 years and over	In Labor force	Civilian labor force (CLF)				Armed Forces	Not in labor force
			Civilian labor force	Employed in CLF	Unemployed in CLF	% Un- employed in CLF		
Andrews County, TX	11457	7492	7487	7048	439	5.9%	5	3965
Andrews, TX	8535	5340	5335	5072	263	4.9%	5	3195
Census tract 9501	1476	995	995	976	19	1.9%	0	481
Census tract 9502	5065	3052	3047	2962	85	2.8%	5	2013
Census tract 9504	2058	1596	1596	1433	163	10.2%	0	462
Ector County, TX	104044	69942	69907	65574	4333	6.2%	35	34102
Census tract 22	2466	1453	1453	1376	77	5.3%	0	1013
Gaines County, TX	12468	7848	7848	7390	458	5.8%	0	4620
Seminole, TX	5080	3295	3295	3072	223	6.8%	0	1785
Census tract 9502	5841	3748	3748	3604	144	3.8%	0	2093
Census tract 9503	4111	2445	2445	2222	223	9.1%	0	1666
Winkler County, TX	5352	3280	3280	3165	115	3.5%	0	2072
Census tract 9504	1277	799	799	735	64	8%	0	478
Lea County, NM	48357	29783	29749	27256	2493	8.4%	34	18574
Eunice, NM	2332	1536	1536	1447	89	5.8%	0	796
Hobbs, NM	25092	15240	15220	14025	1195	7.9%	20	9852
Jal, NM	1612	855	855	816	39	4.6%	0	757
Census tract 1	1915	1227	1227	1126	101	8.2%	0	688
Census tract 2	2507	1479	1479	1213	266	18%	0	1028
Census tract 3	2502	1416	1416	1266	150	10.6%	0	1086
Census tract 4	2358	1307	1307	1241	66	5%	0	1051
Census tract 5.02	4320	2844	2824	2658	166	5.9%	20	1476
Census tract 5.03	2824	1935	1935	1780	155	8%	0	889
Census tract 5.04	2797	2158	2158	1996	162	7.5%	0	639
Census tract 6	4922	3123	3123	2927	196	6.3%	0	1799
Census tract 7.01	1289	900	900	816	84	9.3%	0	389
Census tract 7.02	2818	919	914	745	169	18.5%	5	1899
Census tract 7.03	1918	1321	1321	1265	56	4.2%	0	597
Census tract 7.04	2336	1575	1575	1346	229	14.5%	0	761
Census tract 8	2536	1652	1652	1563	89	5.4%	0	884
Census tract 9	1714	916	916	877	39	4.3%	0	798
Census tract 11	3512	2322	2322	2175	147	6.3%	0	1190

Source: ACS 2009–2013 Table DP03.

Table 1-27: Employment by Industry for Texas Counties 2014 (Texas Workforce Commission)				
INDUSTRY	Andrews County, TX	Ector County, TX	Gaines County, TX	Winkler County, TX
Civilian employed population 16 years and over	7,879	79,051	4,964	2,818
Natural Resources and Mining	2,055	12,429	2,239	863
<i>Percent of Total</i>	<i>26.08%</i>	<i>15.72%</i>	<i>45.10%</i>	<i>30.62%</i>
Construction	872	7,591	435	399
<i>Percent of Total</i>	<i>11.07%</i>	<i>9.60%</i>	<i>8.76%</i>	<i>14.16%</i>
Manufacturing	348	5,958	149	0
<i>Percent of Total</i>	<i>4.42%</i>	<i>7.54%</i>	<i>3.00%</i>	<i>0.00%</i>
Trade, Transportation and Utilities	1,527	18,235	1,124	555
<i>Percent of Total</i>	<i>19.38%</i>	<i>23.07%</i>	<i>22.64%</i>	<i>19.69%</i>
Information	100	496	23	8
<i>Percent of Total</i>	<i>1.27%</i>	<i>0.63%</i>	<i>0.46%</i>	<i>0.28%</i>
Financial Activities	439	3,993	180	95
<i>Percent of Total</i>	<i>5.57%</i>	<i>5.05%</i>	<i>3.63%</i>	<i>3.37%</i>
Professional and Business Services	491	4,794	148	65
<i>Percent of Total</i>	<i>6.23%</i>	<i>6.06%</i>	<i>2.98%</i>	<i>2.31%</i>
Education and Health Services	1,143	13,091	142	496
<i>Percent of Total</i>	<i>14.51%</i>	<i>16.56%</i>	<i>2.86%</i>	<i>17.60%</i>
Leisure and Hospitality	470	7,886	393	132
<i>Percent of Total</i>	<i>5.97%</i>	<i>9.98%</i>	<i>7.92%</i>	<i>4.68%</i>
Other Services	238	3,166	131	65
<i>Percent of Total</i>	<i>3.02%</i>	<i>4.01%</i>	<i>2.64%</i>	<i>2.31%</i>
Public Administration	196	1,404	0	140
<i>Percent of Total</i>	<i>2.49%</i>	<i>1.78%</i>	<i>0.00%</i>	<i>4.97%</i>
Unclassified	0	8	0	0
<i>Percent of Total</i>	<i>0.00%</i>	<i>0.01%</i>	<i>0.00%</i>	<i>0.00%</i>

Source: Labor Market and Career Information, Texas Workforce Commission, 2015.

1.1.10 Environmental Justice

Executive Order 12898 “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations” 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.”

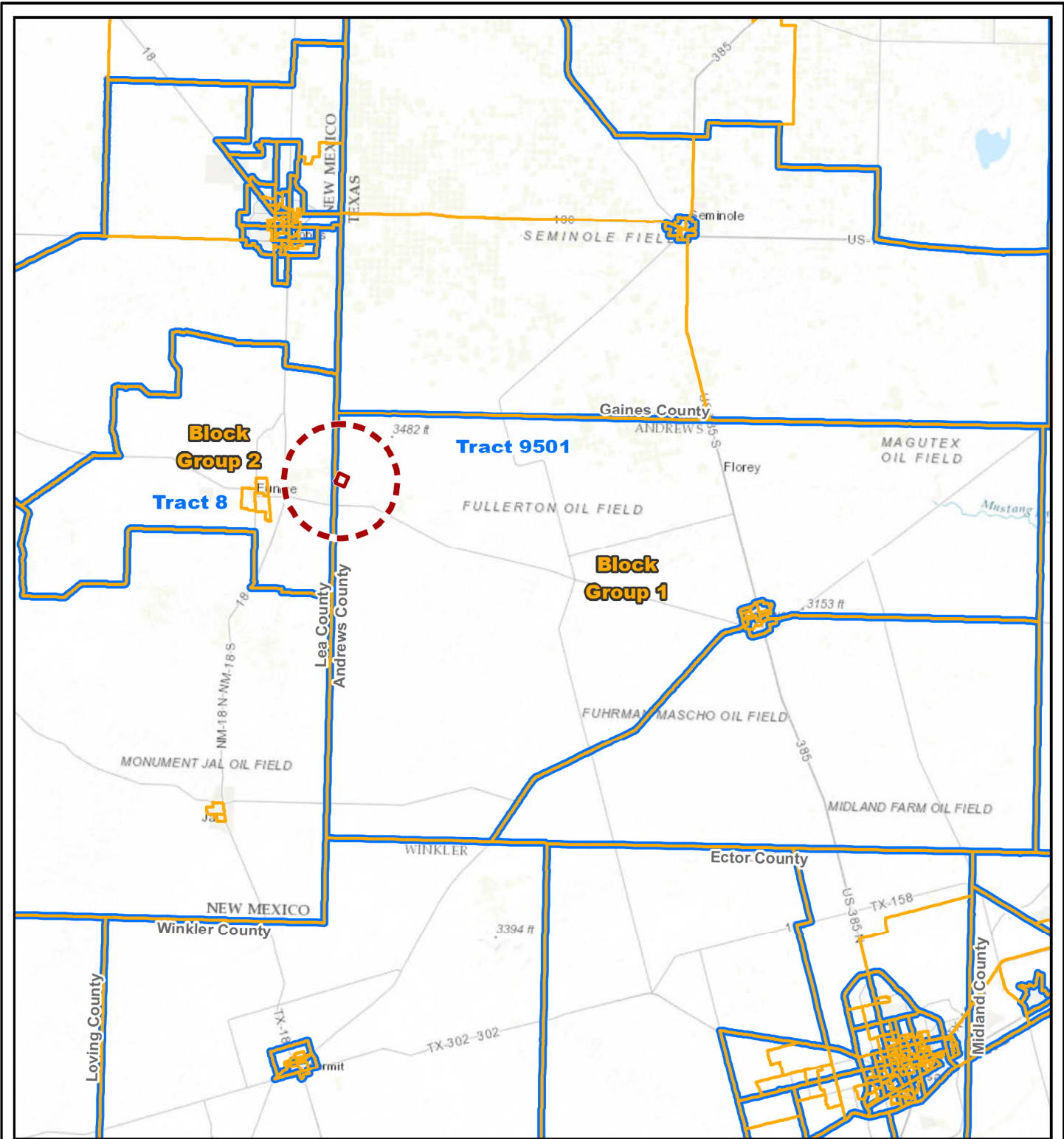
Appendix C (“Environmental Justice Procedures”) to NUREG-1748 “Environmental Review Guidance for Licensing Actions Associated with NMSS Programs” (2003) provides detailed guidance for environmental justice analyses. The appendix has a header noting that necessary updates will be made following the issuance of an Environmental Justice Policy Statement. The Final Policy Statement on the Treatment of Environmental Justice Matters in NRC Regulatory and Licensing Actions (2004) does not state that the interim guidance provided in Appendix C to NUREG-1748 has been superseded, and, in fact, continues to reference the appendix. Therefore, Appendix C was utilized as guidance for this analysis.





The first step in the environmental justice analysis is gathering demographic data for the area around the proposed facility as well as state and county data for comparison. Appendix C states that if a proposed facility is located outside city limits or in a rural area, a radius of four miles (50 square miles) should be used. The recommended geographic area for evaluating Census data is the block group. As the proposed facility would be located in a rural area outside of city limits, census data on race and income was collected for the block groups within a four-mile radius.

The four-mile radius intersects two block groups, according to the 2010 Census. One block group is within Andrews County, Texas, and the other is within Lea County, New Mexico. Therefore, comparison data was also collected for these counties and the states of Texas and New Mexico (see **Figure 1.1-5, Overview of Area – Census Geographies**, and **1.1-6, Census Geographies Within a Four-Mile Radius of the Site**). Although not required, data for census tracts and the city of Eunice (west of the four-mile study area) is included.

1.1.10.1 Identification of Environmental Justice Populations – Minority Populations

Based on the guidance in Appendix C, minority is defined as “individual(s) who are members of the following population groups: American Indian and Alaska Native; Asian; Native Hawaiian and Other Pacific Islander; African American (not of Hispanic or Latino origin); some other race; and Hispanic or Latino (of any race).” Anyone who identifies themselves as white and a minority will be counted as that minority group. The race and ethnicity characteristics for each geography from Census 2010 are presented below in **Table 1-28**. The “Minority” calculation was conservatively defined as all persons who do not identify themselves as “White Only.”



-  Project Location
-  4-mile Study Area
-  2010 Census Tract
-  2010 Census Block Group

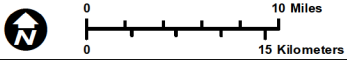


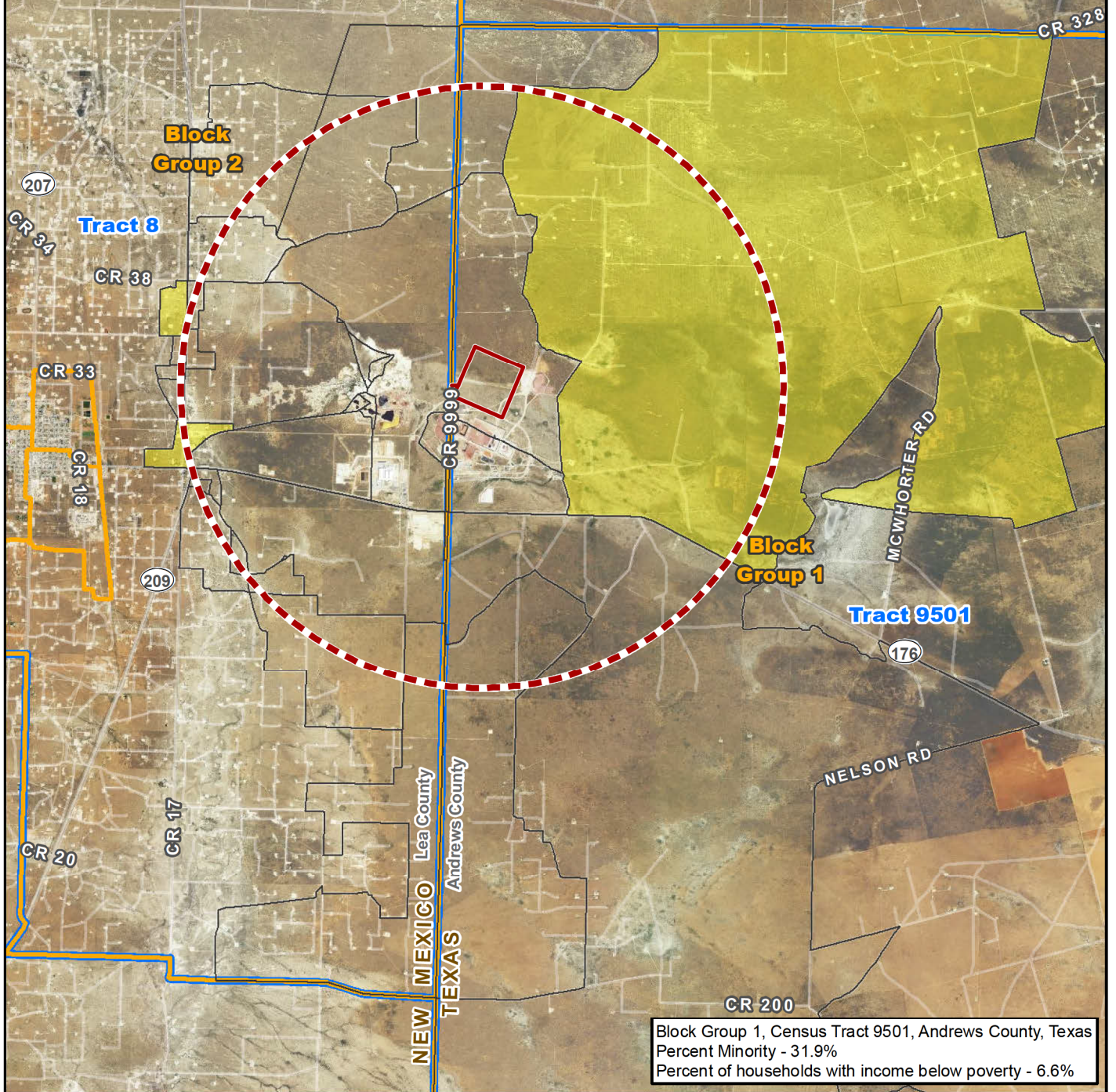
Figure 1.1-5
Overview of Area
Census Geographies
Proposed Consolidated Interim
Spent Fuel Storage Facility

 **COX | McLAIN**
 Environmental Consulting

Prepared for: WCS	1 in = 10 miles
	Scale: 1:633,600
Prepared by: SL	Date: 4/4/2016

Data Source: US Census Bureau (2010)
 Basemap Source: ESRI (2014)
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Block Group 2, Census Tract 8, Lea County, New Mexico
 Percent Minority - 37.3%
 Percent of households with income below poverty - 7.3%



Block Group 1, Census Tract 9501, Andrews County, Texas
 Percent Minority - 31.9%
 Percent of households with income below poverty - 6.6%

- Project Location
- 4-mile Study Area
- 2010 Census Tract
- 2010 Census Block Group
- 2010 Census Block
- Populated 2010 Census Block within the 4-mile Study Area

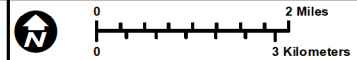


Figure 1.1-6
Census Geographies within a 4-mile Radius of the Site
 Proposed Consolidated Interim Spent Fuel Storage Facility

COX | McLAIN
 Environmental Consulting

Prepared for: WCS	1 in = 2 miles
	Scale: 1:126,720
Prepared by: SL	Date: 4/4/2016

Data Source: US Census Bureau (2010)
 Basemap Source: ESRI (2014)

Table 1-28: Race and Ethnicity in the Four-Mile Radius and Comparison Geographies (2010)

Census 2010 Geography	Total Population	Not Hispanic														Hispanic**		Minority (non-White)	
		White		Black*		Indian*		Asian		Islander*		Other*		Two*		#	%	#	%
		#	%	#	%	#	%	#	%	#	%	#	%	#	%				
Texas																			
BG 1, CT 9501, Andrews County	1,678	1,142	68.1	6	0.4	5	0.3	26	1.5	0	0	2	0.1	14	0.8	483	28.8	536	31.9
CT 9501, Andrews County	1,678	1,142	68.1	6	0.4	5	0.3	26	1.5	0	0	2	0.1	14	0.8	483	28.8	536	31.9
Andrews County	14,786	7,083	47.9	199	1.3	95	0.6	85	0.6	1	0	17	0.1	111	0.8	7,195	48.7	7,703	52.1
Texas	25,145,561	11,397,345	45.3	2,886,825	11.5	80,586	0.3	948,426	3.8	17,920	0.1	33,980	0.1	319,558	1.3	9,460,921	37.6	13,748,216	54.7
New Mexico																			
BG 2, CT 8, Lea County	727	456	62.7	3	0.4	2	0.3	0	0	0	0	0	0	12	1.7	254	34.9	271	37.3
CT 8, Lea County	3,220	1,676	52	30	0.9	11	0.3	3	0.1	2	0.1	5	0.2	25	0.8	1,468	45.6	1,544	48.0
Lea County	64,727	27,845	43.0	2,399	3.7	468	0.7	302	0.5	18	0	51	0.1	581	0.9	33,063	51.1	36,882	57.0
Eunice	2,922	1,464	50.1	27	0.9	11	0.4	3	0.1	2	0.1	5	0.2	22	0.8	1,388	47.5	1,458	49.9
New Mexico	2,059,179	833,810	40.5	35,462	1.7	175,368	8.5	26,305	1.3	1,246	0.1	3,750	0.7	29,835	1.4	953,403	46.3	1,225,369	59.5

Source: 2010 Census Summary File 1—New Mexico[machine-readable data files]/prepared by the U.S. Census Bureau, 2011. Table P9.

Source: 2010 Census Summary File 1—Texas[machine-readable data files]/prepared by the U.S. Census Bureau, 2011. Table P9.

* The complete Census race descriptions are as follows: White alone; Black or African American alone; American Indian and Alaska Native alone; Asian alone; Native Hawaiian and Other Pacific Islander alone; Some Other Race alone; and Two or More Races. **Hispanic persons can be of any race.

As shown in **Table 1-28**, the percentages of the population considered to be minority for the two block groups within the four-mile radius are 37.3 percent and 31.9 percent. The guidance states that if the minority percentage in the relevant block groups exceeds 50 percent, or if the minority percentage in the relevant block groups is more than 20 percentage points greater than the state or county percentages, environmental justice should be considered in greater detail. As shown in **Table 1-28**, the minority percentages for the relevant block groups are below 50 percent and are also each lower than the respective county and state in which the block group is located.

1.1.10.2 Identification of Environmental Justice Populations – Low-income Populations

The guidance in Appendix C states that “low-income is defined as being below the poverty level as defined by the U.S. Census Bureau (e.g., the U.S. Census Bureau’s Current Population Reports, Series P-60 on Income and Poverty).” The 2014 Poverty Thresholds (the most recent data available) were obtained from the U.S. Census Bureau and compared to the median household income for the block groups within the four-mile radius, based on data from the 2009–2013 ACS. The median household income levels were conservatively compared to the highest Census poverty threshold (\$52,685), as the Census presents several thresholds for varying family sizes and characteristics.

As shown in **Table 1-29**, the median household incomes for the relevant block groups are above the *highest* 2014 Census poverty threshold. In 2014 dollars, these numbers would be even higher.

Census 2010 Geography	Total Households	Median Household Income (\$)
BG 1, CT 9501, Andrews Co., TX	639	88,250
BG 2, CT 8, Lea Co., NM	274	53,036

Source: U.S. Census Bureau, 2009–2013 American Community Survey, Tables B11001 and B19013.
ACS data are estimates; they are not counts. Income data is provided in 2013 inflation adjusted dollars.

Appendix C instructs analysts to determine whether the percentage of low-income households exceeds 50 percent of a given block group, or if the percentage of low-income households in the block groups are more than 20 percentage points greater than the reference area. To this end, data from the 2009–2013 ACS was collected regarding the percentage of households living below the poverty level in the relevant block groups and for the reference geographies.

As shown in **Table 1-30**, neither of the block groups have greater than 50 percent of the households with incomes below the poverty level. Furthermore, the percentages of households with incomes below the poverty level are lower in the block groups than in the reference geographies, and therefore do not exceed the 20 percent criterion.

Geography	Total Households	Income below poverty level	
		Number	Percent
Block Group 1, Census Tract 9501, Andrews County, Texas	639	42	6.6%
Andrews County, Texas	5,217	668	12.8%
Texas	8,886,471	1,395,335	15.7%
Block Group 2, Census Tract 8, Lea County, New Mexico	274	20	7.3%
Lea County, New Mexico	21,126	2,911	13.8%
New Mexico	761,938	139,901	18.4%

Source: Table B17017, ACS 2009–2013 five-year estimates.

Furthermore, no minority or low-income populations were identified within the four-mile study area. Based on the foregoing, further environmental justice analysis is not necessary.

1.2 EXISTING FISCAL, GOVERNMENTAL, AND COMMUNITY SERVICES

1.2.1 Andrews County

Located in the oil-rich Permian Basin, Andrews County has produced over two billion barrels of oil since the 1920s. A substantial portion of the area’s economy is supported through oil and gas production with over 1,600 laborers, approximately 27 percent of the total work force in this industry in 2011 (TWC 2015). According to the Texas Workforce Commission, the total labor force for Andrews County is 9,654 laborers in March 2015. Most of industry jobs are in natural resources and mining, education and health services, and trade/transport/utilities. Top manufacturers include Andrews Pump & Supply, BP America Production Company, Centrilift, Chevron Corporation, Kirby West Manufacturing, Sargent Industries Oil Well, and Superior Woodwork (Freese and Nichols 2013).

The City of Andrews has been in a period of large economic activity triggered by major industry investments, which have brought in hundreds of high-paying jobs and additional construction activity. There has been a renewed investment in the oil and gas industry, mainly related to the returns from new technology for oil and gas exploration and extraction (Freese and Nichols 2013). Recent examples of new infrastructure and investments include: Performance Center (Olympic sized natatorium for swimming and diving; 1,000-seat concert hall and 2,000-seat gymnasium); two new elementary schools and significant improvements and additions to every school campus in town; City of Andrews Business and Technology Center; a Senior Citizens Activity Center; a new 90-bed Residential Care Facility; two new business parks (energy industry driven); County Special Events Center; Andrews downtown streetscape improvements; and \$59 million campus for the Permian

Regional Medical Center approved in 2012. Approximately \$163 million in new construction and remodeling has occurred within the City (Freese and Nichols 2013). The City of Andrews is also home to a plant that assembles Kirby vacuum cleaners and a plant that manufactures fiberglass tanks. One library, two banks, three credit unions, and a biweekly newspaper serve the city of Andrews. Fraternal and civil organizations include the Lions Club, Rotary Club, United Way of Andrews, Knights of Columbus, and Girl Scouts of America. Local facilities serving the community of Andrews include 39 churches, a museum, a municipal swimming pool, a golf course, tennis courts, youth club/center/parks, and athletic fields.

Andrews County had a tax base (total certified net taxable value) in 2014 of over \$7.2 billion dollars, a general fund tax rate of 0.2936 per \$100, and a road and bridge tax rate of .0477 per \$100 (Andrews County Appraisal District 2015). The county tax levy in 2014 for all funds amounted to almost \$21,177,205. Total tax rates (per \$100) in 2014 for jurisdictions within the Andrews County Appraisal District include: Andrews Independent School District – a combined rate of \$1.17000; City of Andrews – \$0.18900; Andrews County – \$0.2936; and, Andrews Hospital District – \$0.29612.

1.2.2 Andrews Independent School District

Andrews Independent School District is the only public school district in Andrews County and comprises one high school, one middle school, three elementary schools, and the Andrews Education Center, with a 2014 student population of 3,758 (TEA 2014). Andrews High School offers a comprehensive curriculum including academic studies for the college bound with advanced courses in several areas, a variety of vocational courses, physical training, and extracurricular activities. The District participates in Class 4A University Interscholastic League competition. The district is in good financial condition. In 2014, certified total net taxable value in the District was over \$6.6 million. In 2011, voters approved a \$33-million rolling bond to be divided into three phases: one covering costs from 2011–2014, a second becoming available in 2015, and a third in 2019, each being \$10 million (KWES NewsWest9 2015). In November 2014, the Andrews ISD was considering seeking an additional rolling bond (CBS7 2014). The Andrews Business and Technology Center was completed in 2006 in conjunction with Odessa College and the University of Texas of the Permian Basin. Texas Tech University Health Sciences Center and Odessa College School of Nursing – Andrews Campus also have campuses in Andrews County (AEDC 2015).

1.2.3 Andrews ISD Education Foundation

The Andrews ISD Education Foundation (The Foundation) is a 501(c)(3) tax exempt, nonprofit corporation chartered in April 2000. It is a legal entity that is independent of the school district whose mission is to provide quality educational opportunities in order that all students may become successful and productive citizens. The Foundation operates independently of the Andrews Independent School District for the purpose of:

1. Facilitating student achievement and skill development.
2. Recognizing and promoting staff excellence.
3. Encouraging involvement from individuals, businesses, and civic organizations in the community.

The Foundation's goals are to:

1. Encourage all students to work toward reaching their highest potential.
2. Attract, support, and recognize teachers for innovative efforts and exemplary teaching.
3. Build public awareness and confidence in Andrews schools.
4. Involve the community in assuring a quality education for the leaders and works of tomorrow.

A volunteer Board of Directors with representative community membership governs The Foundation as it seeks funds and sets policy according to its bylaws. The Foundation cooperates with the Andrews ISD to enhance and enrich the educational opportunities of students and teachers of the school district. WCS contributed \$13,925.69 in 2014, and \$4,537.84 in 2015 as of April 1 to The Foundation.

1.2.4 Andrews County Hospital District

Andrews County Hospital District (ACHD) was formed through a public election in May 2001. The ACHD encompasses Andrews County and was organized under Chapter 286 of the Texas Health and Safety Code. The ACHD is governed by a seven-member elected Board of Directors, four of whom are elected based on the four local precincts, and three members elected at large. The Board of Directors is governed by the ACHD bylaws.

ACHD is composed of an 85-bed medical center (Permian Regional Medical Center [PRMC]) and a 90-bed nursing facility (Permian Residential Care Center [PRCC]), which opened in 2004. The PRMC also houses seven physician practices and a quick care clinic with one doctor, three nurse practitioners, and one per diem registered nurse (PRN) (Quick Care Clinic, personal communication 2015). The PRMC is a general acute care facility that provides a wide array of services including General Surgery, Obstetrics and Gynecology, Newborn Care, a Level IV trauma Emergency room, and three-bed intensive care unit. It also has the only nuclear medicine and magnetic resonance imaging (MRI) capability between the Odessa-Midland area and Lubbock.

In 2003 ACHD, with community support, identified a need to take over the provision of long-term care in the community. The district issued revenue bonds of \$5,755,000 to construct PRCC, a new 90-bed nursing home that is physically attached to the medical center on the east side of the building. The new facility opened in October 2004 and has been approved for occupancy.

ACHD is a taxing authority for Andrews County that for fiscal year 2014 had certified total net taxable values of \$6,748,528,780. ACHD's taxing authority allows a maximum tax rate of \$0.75 per \$100 valuation. ACHD's tax rate for fiscal year 2014 was set at \$0.29612 per \$100 valuation, which generated a 2014 tax levy of \$19,989,673 (ACAD 2014a and 2014b).

1.2.5 City of Andrews

Andrews County is unique in that it is among the few Texas counties that include only one incorporated city within its borders (the City of Andrews). Over 70 percent of the county's 14,786 residents live within the city limits of Andrews (US Census Bureau 2015a and 2015b).

The City of Andrews currently operates under a Council-Manager form of city government. City Council members are elected by cumulative vote. The Mayor is elected by single-vote majority. Each Council Member has one vote, with the Mayor breaking tie votes only. A general election to elect three council members was held on May 9, 2015.

The 2014–2015 City Budget reflects a continuing commitment of maintaining a high level of customer service, retaining a well-trained, experienced workforce, and investing in long-term infrastructure. The City remains committed to the fiduciary responsibility that it has in managing public resources. Depreciation is full-funded, and the City's only debt – certificates of obligation issued in 2011 for the construction of the Truck Reliever Route – is tied to a voter-approved, dedicated source of revenue (City of Andrews 2014). The City's overall cost of operating is among the lowest in the state and is reflected in a lower-than-average ratio of personnel costs to total operating expenses.

The City of Andrews is recognized for its financial strength, quality of services, and commitment to excellence. The approved FY 2014–2015 Budget, which has been posted on-line (http://www.cityofandrews.org/docs/2015_Budget_Introduction_and_Overview.pdf), provides for the efficient and effective delivery of municipal services.

The General Fund provides for public safety services (police, fire, emergency medical service [EMS], and animal control), public health, streets/traffic maintenance, recreational activities, as well as general finance and administration. The General Fund budget proposes operating revenues of \$6,869,358. The Utility Fund provides water production and distribution services as well as sewage collection and treatment for the citizens of Andrews. The 2014–2015 Utility Fund Budget proposes expenditures of \$3,065,614, along with \$1 million from a transfer to the Utility Capital Improvement Fund, to help finance capital projects benefiting the Utility Fund. Revenues, less operating expenditures and transfers, results in a decrease in the fund balance by \$690,167.

The Sanitation Fund provides garbage collection and disposal services. The Sanitation Fund budget has proposed operating expenditures of \$1,542,520.

The FY 2014–2015 City Budget also proposed an ambitious Capital Improvements Program with nearly \$8.1 million in capital expenditures. Major capital improvement expenditures identified in the FY 2014–2015 City Budget reflect that \$5,000,000 is being carried over from the FY 2014 budget for the construction of a water treatment facility, and \$500,000 is being carried over to line the wastewater lagoon. The City identified funds for the police car take-home program, coating for the interior of a water storage tank, replacement of 800 water meters, laying new water lines in southwest Andrews, and a new street sweeper.

The FY 2014–2015 City Budget provides for efficient and effective delivery of municipal services. Long-term needs are addressed through “pay-as-you-go” fiscal policies. The City maintains a very low tax rate (0.18900/\$100 valuation in 2014), and a lower-than-average ratio of personnel costs to operating expenses.

The Andrews Business & Technology Center opened its doors in 2006. The building is a state-of-the-art facility offering job training, continuing education, higher education courses, the latest in distance learning technology, and the development of numerous quality of life initiatives (AEDC 2015).

1.2.6 Andrews Chamber of Commerce, Andrews Industrial Foundation

Andrews County Chamber of Commerce was formed in the 1950s. It was a typical, traditional Chamber of Commerce that had voluntary membership of businesses, both retail and wholesale, in Andrews, Texas whose primary economy was based on oil and gas production. It has been in continuous operation ever since, and has a membership open to anyone in the community that is interested in promoting Andrews from a business, tourism, or cultural standpoint. The current membership is approximately 290 to 302 members (Andrews Chamber of Commerce 2015). The Chamber of Commerce has been supportive of various community initiatives and activities.

The Andrews Industrial Foundation (AIF) is a private foundation that was created in the mid-1960s to seek economic diversification. It has received support from the general business community, as well as from the City, County, school district, and local governments over the years, and has worked in conjunction with those governing bodies to bring new industry to Andrews. The President of the AIF in the 1970s, 1980s, and 1990s was James Roberts. In the 1990s, Mr. Roberts was approached about the possibility of locating a low-level hazardous waste site in Andrews County because of the arid climate and redbed clay geology. After that, there were visits with the community leaders about the proposal. A public information meeting was held by the AIF and thereafter WCS was formed. More information regarding the coordination with WCS and AIF, along with assistance with community activities historically, can be found in the 2008 Hicks & Company socioeconomic impact study.

WCS has been an active member of the Andrews Chamber of Commerce for many years and has had employees on the board of directors several times. WCS employees are also involved in other community groups, such as the local Rotary Club, Lions Club, Andrews Education Foundation, Hospital Board, United Way, Women’s Division of the Chamber of Commerce, American Cancer Relay

for Life, Faith in Action, Lea County Economic Development, Chamber Ambassadors, and other volunteer organizations. WCS's contribution to the community includes 160-full time jobs in Andrews County and \$13 million in annual payroll, which also adds \$4 million in revenue for Andrews County (WCS 2015).

1.2.7 Lea County

New Mexico's median property tax is perennially ranked among the eight lowest states in the nation; any change in taxes requires an amendment to the state constitution. One-third, or 33.3 percent, of the valuation of property's market value (assessment) is its taxable value. There are exemptions of \$2,000 for heads-of-households, and \$4,000 for veterans. The one-third taxable value on property excludes oil and gas properties. The tax applied is a composite of state, county, municipal, school district and other special district levies. Properties outside city limits are taxed at lower rates. Major facilities may be assessed by the New Mexico State Taxation and Revenue Department instead of by the county.

New Mexico communities can abate property taxes on a plant location or expansion for a maximum of 30 years, (usually 20 years in most communities), controlled by the community. The state also has a Gross Receipts Tax paid by product producers. This tax is imposed on businesses in New Mexico, but in almost every case it is passed on to the consumer. In that way, the gross receipts tax resembles a sales tax. The New Mexico Gross Receipts Tax for 2015 is 5.125 percent. The gross receipts tax for the Eunice area is 6.8125 percent, with areas outside of Eunice in the remainder of the county as 5.5 percent (New Mexico Taxation and Revenue Department 2015). Certain deductions may apply to this tax for plant equipment.

The Lea County community was initially agriculturally based, but the discovery of oil and gas in the mid-1920s has had a significant impact on the region. Today the county's agricultural heritage continues to have underlying influences on the county's development with an active dairy industry as well as farming and ranching. The oil and gas industry still has a strong effect on the local economy, and in addition, there is a growing manufacturing sector. Five libraries, nine financial institutions, and two daily newspapers serve Lea County. Cities in Lea County that are within the ROI include Hobbs, Eunice and Jal.

In Lea County, there are five public school districts and four private schools; the county has a total of 31 public schools with 15,011 students enrolled in pre-kindergarten through 12th grade during the 2014–2015 academic year (EDCLC 2015). The closest school district is in Eunice, located six miles to the west, with the other districts located in Hobbs, Jal, Lovington, and Tatum. The main campus of the University of the Southwest (USW) is located just north of Hobbs. The 2014 enrollment was approximately 312 students (Personal communication, Michelle Goar, 2015). New Mexico Junior College, located in Hobbs, has a current enrollment of 2,712 full and part time students (Personal communication, Connie Hanson, NMJC 2015). NMJC has a New Mexico Junior College Training and

Outreach Department, which provides workforce training programs throughout the county, including learning vocational skills in a variety of business and vocational-technical fields.

There are two hospitals in Lea County, New Mexico. The Lea Regional Medical Center is located in Hobbs, New Mexico about 20 miles north of the WCS facility. Lea Regional Medical Center is a 201-bed hospital providing complete care, including cardiac care, pediatrics, mental health, and outpatient surgery. The hospitals have 39 active physicians and 34 consulting physicians. In Lovington, New Mexico, 39 miles north-northwest of the facility, Covenant Medical Systems manages Nor-Lea Hospital, a 25-bed Medicare-certified Critical Access Hospital serving southeastern New Mexico. They manage medical clinics in Lovington, Tatum, and Hobbs, and offer a range of outpatient, specialty, image, and infusion services. These clinics include the Lovington Medical Clinic, Nor-Lea Evening Clinic, Family Health Center of Lea County, Tatum Clinic, and the Lovington Student Healthcare Center (Nor-Lea 2012).

1.2.8 City of Hobbs

The City of Hobbs FY 2015 Preliminary Budget reveals that the City is in good fiscal condition (City of Hobbs 2015). The Gross Receipts Tax (GRT) is the dominant revenue source in the City's General Fund, and totals approximately 87.5 percent of all General Fund Revenues. The GRT is collected by the New Mexico Taxation and Revenue Department, and is disbursed back to the cities with a lag time of about two months. The current GRT rate in the City of Hobbs is 6.8125 percent.

Cities of Eunice and Jal

The City of Eunice, New Mexico, located about six miles west of the processing and storage facilities, has a Mayor-Council form of municipal government and provides water, sewer, and EMS services. In 2014, its general fund expenditures was \$4,002,127, and all funds were \$10,264,108. The City employed 6 police officers, 2 full-time firefighters, and 21 part-time firefighters in 2012 (City-Data 2012). The City had a residential property tax rate of 28.244 per \$1,000 and a non-residential rate of 35.437 per \$1,000 within the city in 2014 (LCTAO 2014). The City's Gross Receipts Tax rate was 6.8125 percent within the City limits (NMTRD 2015).

The City of Jal, New Mexico, has a Mayor-Council form of municipal government and provides water, sewer, solid waste, and EMS services. In 2014, its general fund expenditures was \$1,514,950, and all funds were \$5,904,526. The City employed eight part-time police officers and nine other police staff, and was served by an all-volunteer fire department in 2012 (City-Data 2012). The City had a residential property tax mill rate of 23.784 and a non-residential mill rate of 30.110 within the city in 2014 (LCTAO 2014). The City's Gross Receipts Tax rate was 7.0625 percent within the City limits (NMTRD 2015).

1.2.9 Public Safety in Andrews and Lea Counties

Fire protection is provided from both Texas and New Mexico. The Andrews Volunteer Fire Department is staffed by a Fire Marshal and three companies, each led by a Fire Chief. The department has 44 active firemen. Equipment includes 23 trucks and one hazardous materials trailer. The trucks includes:

- Three pumper trucks
- One tanker
- Four booster trucks
- One foam application boom truck used primarily for fighting oilfield fires
- Two chief officers' trucks,
- One hazmat trailer; and
- One rescue truck

Lea County has three volunteer fire departments located in Knowles, Maljamar, and Monument. There are a total of nine fire departments in Lea County, with five being municipal fire departments. The Knowles Fire Department is a 30-member, totally volunteer, fire/EMS organization that has 13 firefighters/EMTs, 14 firefighters, and 3 dispatchers. The fire department has 3 Class A Engines with pump and roll capabilities, 2 water tankers, 2 wildland grass rigs, with a total rolling water capacity of 14,000 gallons. The Maljamar Fire Department has one station with 17 volunteer firefighters.

The City of Hobbs is staffed by 74 uniformed and 4 civilian employees. They have hazardous materials duties, emergency medical service and support, as well as fire prevention and suppression, provided at three fire station locations.

Mutual aid agreements are in place with Lea County and the City of Eunice. Fire and emergency support services for the Eunice area are provided by Eunice Fire and Rescue located approximately six miles from the processing and storage facility. Equipment at the Eunice Fire and Rescue includes three ambulances, three pumper fire trucks, three grass fire trucks, and one rescue truck. If additional fire equipment is needed, or if the Eunice Fire and Rescue is unavailable, the Central Dispatch will call the Hobbs Fire Department. In instances where radioactive/hazardous materials are involved, knowledgeable members of the WCS Emergency Response Organization (ERO) provide information and assistance to the responding off-site personnel.

The Andrews Sheriff's Department and Police Department are the primary law enforcement for Andrews County. The force consists of 15 police officers, including the chief, a school resource officer, administrative assistant, and an animal control officer. All officers are certified in emergency services as paramedics or EMTs. There are three shifts, with four officers assigned to each shift, with each shift having a police supervisor overseeing the 8-hour shift. A dispatcher in the County's Sheriff's Department dispatches officers, ambulance, and fire personnel. If additional resources are needed,

officers from mutual aid communities within Lea County, New Mexico, and the City of Eunice, can provide an additional level of response. The Eunice Police Department, with five full-time officers, provides local law enforcement. The Lea County Sheriff's Department also maintains a substation in the community of Eunice.

1.3 EXISTING SOCIAL STRUCTURE IN THE REGION OF INTEREST

This section assesses various characteristics of the project area to gain a basic understanding of social structure in the ROI. For a detailed analysis of social and cultural history in the project area focused on recent WCS licensing activities, including opinion surveys, see the Socioeconomic Impact Assessment for the Low-Level Waste Disposal Facility (2007) and License Renewal (2008) by Hicks & Company, according to the Texas Department of State Health Services licensing requirements.

1.3.1 Historical Summary

The 2008 WCS license application includes a detailed history of social attitudes in the Region of Interest. In summary, the residents of the ROI have generational experience with a cyclical resource extraction economy; a long history with risk-associated industries, including toxic and flammable chemicals and gases (such as hydrogen sulfide), and the transportation of these materials; an increasingly effective regulatory regime to protect the environment; a long-term desire to increase economic diversification and more stable growth of employment and income in the area; and prospects for a more diverse occupational and income structure. In general, the ROI population appears to have the common social objectives of good jobs for their children, maintenance of all age sectors within their populations, and more opportunities for college-educated residents. The populations of the ROI have experienced “boom-bust” cycles for more than 30 years and have benefited from the development of the waste and nuclear energy sectors within recent decades. Residents seek higher incomes and job opportunities for community residents. Basic sectors still dominate industry along with resource extraction, but the regional economy is anticipated to benefit from expansion of the growing waste disposal and related nuclear energy industry.

1.3.2 Social Stratification Analysis

In the context of the specific history of the area, there are numerous shared life experiences that indicate a commonality of interests. As discussed in detail in the WCS 2008 Socioeconomic Impact Assessment, the ROI shares a dependence upon the variable vitality of the petroleum industry and to a lesser extent, the hardships inherent in dry land agriculture. Both of these industries are highly dependent upon external events, such as the international price of oil, rainfall, and/or cattle demand. To a large extent, large corporations and/or governmental entities create the circumstances of work and income for workers in these industries, for workers in related and dependent businesses; these influences in turn affect the adequacy of community infrastructure, housing costs, and numerous other community effects. Increasingly, the job base created by the construction of the URENCO USA

facility and associated industry is benefitting economies in the ROI including infrastructure and community services.

1.3.2.1 Employment

As can be computed for the ROI from **Table 1-26**, the labor participation rate (the total persons in the labor force divided by total population 16 years and over) in the ROI (Ector, Andrews, Gaines, and Winkler Counties, Texas, and Lea County, New Mexico) was 65.1 percent (118,345 out of 181,678). This is essentially the same as for Texas but higher than the rate in New Mexico. There was an approximately 60.7 percent labor participation rate in New Mexico (979,565 participating out of 1,612,730 in the work force 16 and older) and approximately 65.2 percent in Texas (with 12,691,031 participating out of 19,468,136 persons over 16 in the work force). In Lea County, labor participation was 61.6 percent. In Eunice it was 65.9 percent and in Hobbs it was 60.7 percent. Jal had the lowest labor participation rate at 53.0 percent. In Andrews County, the labor participation rate was 65.4 and it was 62.9 percent in Gaines County. Approximately 62.6 percent of persons over 16 participated in the labor force in the City of Andrews and 64.9 participated in Seminole. In Ector County, the labor participation rate was 67.2 percent, and in Winkler County it was about 61.3 percent.

The rate of employment in basic labor sectors (defined for this area as agriculture and mining, manufacturing, construction and transportation) is significant. As shown in **Table 1-25**, the economic sector including agriculture and mining (which includes oil and mineral extraction) ranges from a low of 13.4 in Seminole to a high of 27.8 in the city of Andrews, with 25.4 percent in Eunice. In Lea and Andrews counties, 21.2 and 27.6 percent of persons work in these sectors compared to the states of New Mexico and Texas, where 4.4 percent and 3.1 percent respectively are employed in these sectors. When added together the basic sectors for all counties in the ROI make up 39.1 percent of employment compared to 25.8 percent in Texas and 21.0 percent in New Mexico.

In sectors that generally require higher educational attainment (e.g., information; finance, insurance, real estate; professional, scientific, administrative and waste management services); the counties within the ROI employ approximately 11.1 percent of their workers in these industries, compared to 19.2 percent in Texas or 17.2 percent in New Mexico. See **Table 1-11** for educational attainment in the ROI.

Similar rate of employment by sector were identified by the Texas Workforce Commission annual reports of Jobs. As shown in **Table 1-27**, the natural resources and mining sector was a major employer in the ROI, constituting 26.08 percent in Andrews, 45.10 percent in Gaines County, and 30.62 percent in Winkler County.

A review of **Table 1-31** indicates that in Lea County, 79.2 percent of workers 16 and over travel less than 25 minutes to work. Approximately 70 percent of Eunice residents travel less than 25 minutes to work. In Hobbs, 83.5 percent of persons travel less than 25 minutes to work, while 68.9 percent of Jal's commuters travel less than 25 minutes. In Andrews County, 65.2 percent of workers travel less than 25 minutes to work and 63.2 percent in Andrews City travel less than 25 minutes to work. In Gaines, 79.9 percent of workers travel 25 minutes or less compared 87.7 percent of Seminole workers. In Winkler County, 70.4 percent of workers travel less than 25 minutes to work, compared to 76.9 percent in Ector County. Overall in New Mexico, approximately 68.4 percent of workers travel 25 minutes or less while in Texas, 58.2 percent of workers travel that amount of time to work. The majority of workers in the ROI travel 25 minutes or less for work, indicating that they live and work in relatively close proximity.

With regard to employment versus unemployment by race, data can be found in **Table 1-24**. Note that data from the American Community Survey is based on statistical analysis estimates rather than 100 percent census data or counts, so it is accompanied by a margin of error. Within the ROI, the population with the highest percentage employed is Native Hawaiian/Other Pacific Islander (100%) in Gaines and Ector counties, and Seminole, Texas, however that is for a total of 35 persons in Ector County, and 48 persons in Gaines County and Seminole, Texas, which is a fraction of the total population of 104,044 (Ector County), 12,468 (Gaines County) and 5,080 (Seminole). In comparison, the population with the highest percentage of unemployed is Black and African American (100%) in Jal, New Mexico. As with the number of employed, the number of persons within this population (15) is relatively small as compared to the total population of 1,612. The Hispanic population constitutes the largest minority group in the ROI and unemployment rates range from a low of 1.9 percent in Jal, New Mexico, and a high of Winkler County to 10.1 percent in Lea County, New Mexico.

1.3.2.2 Labor Force Participation and Unemployment Distribution

The “boom-bust” cycle in the oil sector is best represented by longitudinal analysis of population, labor force participation and unemployment trends. Population analysis of data from 1920–2010 are shown in **Table 1-32**. As shown, after the discovery of oil in the 1920's, population grew rapidly in Lea, Andrews, and Ector counties through 1960. This growth also occurred to a lesser extent in Gaines, and Winkler counties (with Winkler County experiencing very large growth between 1920 and 1930). Andrews and Gaines counties grew more than 100 percent between 1940 and 1950, and between 1950 and 1960. Regional population after 1960 either declined or stabilized through 2000.

Table 1-31: Travel Time to Work in the Nation and Region of Interest (2009 – 2013)

Travel Time	Lea County, New Mexico	Eunice, New Mexico	Hobbs, New Mexico	Jal, New Mexico	Andrews County, Texas	Andrews, Texas	Gaines County, Texas	Seminole, Texas	Winkler County, Texas	Ector County, Texas	New Mexico	Texas	United States
Total Workers 16 years and over	25,967	1,412	13,361	795	6,685	4,774	7,051	2,927	3,012	62,866	826,524	10,983,502	133,740,254
Did not work at home	25,259	1,377	12,989	783	6,490	4,632	6,903	2,912	2,942	61,368	784,111	10,521,990	127,693,869
Less than 5 minutes	1,762	178	830	100	659	502	1,102	406	543	2,647	35,443	333,493	4,308,933
<i>Percentage</i>	6.8%	12.6%	6.2%	12.6%	9.9%	10.5%	15.6%	13.9%	18%	4.2%	4.3%	3%	3.2%
5 to 9 minutes	5,022	310	2,545	228	1,691	1,271	1,982	1,129	860	8,478	109,113	1,105,605	13,714,706
<i>Percentage</i>	19.3%	22%	19%	28.7%	25.3%	26.6%	28.1%	38.6%	28.6%	13.5%	13.2%	10.1%	10.3%
10 to 14 minutes	6,545	198	4,209	161	1,025	708	991	582	334	13,627	144,373	1,569,957	19,150,654
<i>Percentage</i>	25.2%	14%	31.5%	20.3%	15.3%	14.8%	14.1%	19.9%	11.1%	21.7%	17.5%	14.3%	14.3%
15 to 19 minutes	4,518	75	2,641	34	837	487	991	323	288	14,085	152,151	1,761,760	20,753,054
<i>Percentage</i>	17.4%	5.3%	19.8%	4.3%	12.5%	10.2%	14.1%	11%	9.6%	22.4%	18.4%	16%	15.5%
20 to 24 minutes	2,726	227	933	24	149	53	563	127	93	9,501	123,775	1,626,711	19,796,414
<i>Percentage</i>	10.5%	16.1%	7%	3%	2.2%	1.1%	8%	4.3%	3.1%	15.1%	15%	14.8%	14.8%
25 to 29 minutes	808	119	393	24	102	97	224	41	34	2,003	41,705	640,387	8,189,640
<i>Percentage</i>	3.1%	8.4%	2.9%	3%	1.5%	2%	3.2%	1.4%	1.1%	3.2%	5%	5.8%	6.1%
30 to 34 minutes	2,233	134	871	64	592	457	601	93	205	5,695	99,121	1,644,071	18,220,851
<i>Percentage</i>	8.6%	9.5%	6.5%	8.1%	8.9%	9.6%	8.5%	3.2%	6.8%	9.1%	12%	15%	13.6%
35 to 39 minutes	155	0	51	14	205	169	18	14	20	629	14,188	289,616	3,673,571
<i>Percentage</i>	0.6%	0%	0.4%	1.8%	3.1%	3.5%	0.3%	0.5%	0.7%	1%	1.7%	2.6%	2.7%
40 to 44 minutes	224	30	64	25	195	195	49	33	13	942	19,798	382,174	4,920,004
<i>Percentage</i>	0.9%	2.1%	0.5%	3.1%	2.9%	4.1%	0.7%	1.1%	0.4%	1.5%	2.4%	3.5%	3.7%
45 to 59 minutes	379	40	122	48	588	376	182	20	200	1,671	43,747	851,111	10,154,523
<i>Percentage</i>	1.5%	2.8%	0.9%	6%	8.8%	7.9%	2.6%	0.7%	6.6%	2.7%	5.3%	7.7%	7.6%
60 to 89 minutes	976	76	354	73	350	258	203	91	231	1,696	27,692	555,552	7,488,235
<i>Percentage</i>	3.8%	5.4%	2.6%	9.2%	5.2%	5.4%	2.9%	3.1%	7.7%	2.7%	3.4%	5.1%	5.6%
90 or more minutes	619	25	348	0	292	201	145	68	191	1,892	15,418	223,065	3,369,669
<i>Percentage</i>	2.4%	1.8%	2.6%	0%	4.4%	4.2%	2.1%	2.3%	6.3%	3%	1.9%	2%	2.5%

Source: ACS 2009–2013 Table B99084 & B08303.

Table 1-32: Historic Population Trends in the Region of Interest							
Year	Lea County, NM	Andrews County, TX	Gaines County, TX	Winkler County, TX	Ector County, TX	New Mexico	Texas
1920	3,545	350	1,018	81	760	360,350	4,663,228
<i>Percent Change 1920-1930</i>	73.3%	110.3%	175%	8,375.3%	420.8%	17.5%	24.9%
1930	6,144	736	2,800	6,784	3,958	423,317	5,824,715
<i>Percent Change 1930-1940</i>	244.3%	73.5%	190.6%	-9.5%	280.3%	25.6%	10.1%
1940	21,154	1,277	8,136	6,141	15,051	531,818	6,414,824
<i>Percent Change 1940-1950</i>	45.2%	291.7%	9.5%	63.9%	179.7%	28.1%	20.2%
1950	30,717	5,002	8,909	10,064	42,102	681,187	7,711,194
<i>Percent Change 1950-1960</i>	73.9%	168.9%	37.7%	35.7%	116.1%	39.6%	24.2%
1960	53,429	13,450	12,267	13,652	90,995	951,023	9,579,677
<i>Percent Change 1960-1970</i>	-7.3%	-22.9%	-5.5%	-29.4%	0.9%	6.8%	16.9%
1970	49,554	10,372	11,593	9,640	91,805	1,016,000	11,196,730
<i>Percent Change 1970-1980</i>	13%	28.5%	13.4%	3.2%	25.7%	28.2%	27.1%
1980	55,993	13,323	13,150	9,944	115,374	1,302,894	14,229,191
<i>Percent Change 1980-1990</i>	-0.4%	7.6%	7.4%	-13.3%	3.1%	16.3%	19.4%
1990	55,765	14,338	14,123	8,626	118,934	1,515,069	16,986,510
<i>Percent Change 1990-2000</i>	-0.5%	-9.3%	2.4%	-16.8%	1.8%	20.1%	22.8%
2000	55,511	13,004	14,467	7,173	121,123	1,819,046	20,851,820
<i>Percent Change 2000-2010</i>	16.6%	13.7%	21.1%	-0.9%	13.2%	13.2%	20.6%
2010	64,727	14,786	17,526	7,110	137,130	2,059,179	25,145,561

Source: U.S. Census Bureau, Decennial Census; City and County Data Book (through 2000); U.S. Census for 2010 data because the data book was last published in 2007.

Between 2000 and 2010, growth occurred again in Lea, Andrews, Gaines, and Ector counties with a slight decline in Winkler County's population. Data from the mid-1980s, 1990, and 2000 from the City and County Data Book files (2000) were examined for patterns. The last published version of this document was 2007 so the 2010 census was used for 2010 data. Focusing on Lea County and Andrews County, as indicated in **Table 1-33**, after the resurgent oil economy of the late 1970s and early 1990s, there was a significant drop in oil prices followed by a reduction in oil production, some capping of wells, the closure of two oil company administrative offices in Andrews, and the loss of a natural gas industry administrative office in Jal. Population declined between 1980 and 1990 in Lea and Winkler Counties. With the decline in population, labor force participation increased, while unemployment actually decreased. Per capita income in constant dollars (accounting for inflation) decreased slightly and in current dollars grew at about half of the state rate of increase. Population increased and labor force participation increased; unemployed remained low; and per capital income actually increased. Between 1990 and 2000, population in Lea, Andrews, and Winkler Counties declined and population slightly increased in Gaines and Ector counties. During that same time period, overall population in New Mexico and Texas grew by more than 20 percent. The period between 2000 and 2008 includes the so-called "energy crisis" where prices for a barrel of oil steadily increased until they arguably peaked in 2008, with various impacts on the global economy. Oil and gas prices reached between 120 and 140 dollars a barrel, with very steep declines after that down into the 40s and below by 2009 (Phillips 2015). In Texas, the Permian Basin has anchored the ROI in oil and gas and related activities, such that populations again grew in the ROI between 2000 and 2010 for all counties in the ROI except Winkler County.

While this effect of steady or increasing labor force participation and decreased unemployment may seem contradictory, it has been found to be a common "boom-bust" effect of rapid industrialization. With a growing basic industry, more people move in than can be supported during the slowing of the boom. Following a boom, the oil-related tax revenues can be used to grow services and infrastructure and there is often a lag period between the extremes of growth, unemployment, out-migration, and a gradual increase in jobs for the people remaining, typically in lower paying sectors (Summers, et al. 1976).

In the ROI, it is likely that additional women entered the labor force in health, education, and retail trades to supplement family income, partly due to local economic conditions and also in alignment with national trends. To investigate this effect further, in- and out-migration data for the region from the 2010 census were examined for the 2008 to 2012 period. During this period, the oil industry was fluctuating. In-migration between 2008 and 2012 exceeded out-migration, primarily, as shown on **Table 1-34** with the highest example of in-migration from a different state being Lea County, New Mexico. Over this time period, net migration calculated by subtracting total out-migration from total in-migration was positive for Lea, Andrews, Winkler, and Ector Counties (with the highest net migration), with out-migration exceeding in-migration only for Gaines County, Texas.

Table 1-33: Selected Economic Trends in the Region of Interest				
Variables	Lea Co.	New Mexico	Andrews Co.	Texas
Population 1986	65,080	1,426,185	15,837	16,087,289
Population >14 yrs. 1986	45,490	1,061,080	15,837	12,176,078
Civilian Labor Force 1986	25,498	627,000	8,258	8,159,000
Labor Force Participation 1986	56.05%	59.09%	52.14%	67.01%
Percent Unemployment 1986	12.50%	9.20%	8.80%	8.00%
Per capita Income (Current \$) 1985	\$11,436	\$10,256	\$12,893	\$12,575
Population 1992	55,765	1,515,069	14,338	16,986,510
Population >16 yrs. 1990	37,251	1,068,124	9,377	12,145,355
Civilian Labor Force 1990	23,013	715,000	6,156	8,555,000
Labor Force Participation 1990	61.78%	66.94%	65.65%	70.44%
Percent Unemployment 1990	7.20%	6.90%	6.90%	6.60%
Per capita Income (Current \$) 1989	\$13,428	\$14,254	\$15,316	\$16,717
Population 2000	55,511	1,629,146	13,004	21,325,018
Population >16 yrs. 2000	38,824	1,320,572	8,900	19,238,259
Civilian Labor Force 2000	24,634	832,835	4,998	10,324,527
Labor Force Participation 2000	63.45%	63.07%	56.16%	53.67%
Percent Unemployment 2000	4.80%	4.90%	5.80%	4.20%
Per capita Income (Current \$) 1999	\$18,756	\$21,164	\$17,351	\$25,369
Population 2006	57,312	1,954,599	12,952	23,507,783
Population >15 years old	44,302	1,548,042	10,011	18,077,485
Civilian Labor Force	26,803	935,350	7,022	11,487,496
Labor Force Participation 2006	60.50%	60.40%	70.10%	63.50%
Percent Unemployment 2006	3.2%	4.2%	3.5%	4.9%
Per capita Income (Current \$) 2005	\$27,636	\$27,889	\$27,727	\$32,460

Source: City and County Data Book, 1988, 1994, 2000, and 2007.

Table 1-34: In-Migration and Out-Migration by County (2008–2012)

Geographic Area	Domestic In-Migration			Domestic Out-Migration			5-Year Net Migration (Total In-Migration minus Total Out-Migration)
	From Same State	From Different State	Total Migration	To Same State	To Different State	Total Migration	
Lea County	1,358	2,468	3,826	1,351	1,913	3,264	562
Andrews County	822	313	1,135	535	230	765	370
Gaines County	632	242	874	668	347	1,015	-141
Winkler County	448	133	581	313	-	313	268
Ector County	6,620	2,095	8,715	5,083	1,370	6,453	2,262

Source: ACS (2008–2012) Census Flow Mapper.
<http://flowsmapper.geo.census.gov/flowsmapper/flowsmapper.html>.

These gross effects of net out-migration are not borne equally by the ROI’s population. As indicated in **Table 1-24**, Employment Status in the ROI, 2010, the unemployment rate for most races in most geographies was lower than for Texas or New Mexico. Note that the ACS data is statistical sampling which is not census data, so there is a margin of error associated with the data (and the percentages). Nonetheless, unemployment was lower than for Texas and New Mexico in the majority of races and geographies. The exceptions were that for all persons in Lea County, the unemployment rate was below New Mexico’s rate but above the Texas rate. The unemployment rate for Black or African American persons; American Indian/Alaska Native; and Other Race in Lea County was lower than in the state of New Mexico but higher than in Texas. In Eunice, populations were too low to register statistically for some races, but unemployment was higher than in Texas or New Mexico for persons from Other races, but otherwise lower than state rates. In Hobbs, unemployment was lower than for the states for all persons, Black or African Americans, Asians, and Hispanics, but higher for American Indian/Alaska Natives, Other Races, and Two or More Races. In Jal, Andrews County and the City of Andrews, unemployment was lower than the states for all races except Black or African American. In Gaines County, unemployment was lower than the states for all races except Two or More Races. In Seminole, unemployment was lower than the states for all groups except Hispanics, and in Winkler unemployment was higher than the states for American Indian and Alaska Natives. In Ector County, unemployment rates for all races except for people of a race not listed were lower than for New Mexico and Texas.

1.3.2.3 Income

As shown in **Table 1-35**, median household income according to ACS ranges from approximately \$48,000 to nearly \$58,000 in the ROI. Income levels are highest for White persons, American Indian/Alaska Native, and Asians in some areas and lowest for Black or African American persons. Hispanic median household incomes range from \$44,000 to almost \$49,000, and are higher than for New Mexico or Texas. Given that this is statistical data, the data set is larger for Hispanic persons and therefore more consistent across geographies when compared to some smaller racial groups or geographies. In terms of poverty status, as shown in **Table 1-36**, according to ACS data the

Table 1-35: Income of Households by Race and Age in the Region of Interest (2009–2013)

Subject	Lea County, New Mexico	Eunice, New Mexico	Hobbs, New Mexico	Jal, New Mexico	Andrews County, Texas	Andrews, Texas	Gaines County, Texas	Seminole, Texas	Winkler County, Texas	Ector County, Texas	New Mexico	Texas
Median Households Income	50,694	54,152	49,243	48,790	57,825	53,833	52,910	50,911	48,992	51,466	44,927	51,900
White median income	55,240	75,875	53,103	49,479	60,929	58,608	55,230	52,917	55,444	55,654	54,334	63,924
Black or African American median income	39,203	-	32,098	-	36,645	36,908	29,028	-	33,958	35,379	41,214	38,156
American Indian/Alaska Native median income	62,216	-	68,125	-	93,185	93,185	86,438	-	-	41,125	32,136	45,161
Asian median income	18,450	-	-	-	135,435	135,435	-	-	-	81,042	57,457	71,259
Native Hawaiian/ Other Pacific Islander median income	-	-	-	-	-	-	-	-	-	-	32,071	59,276
Hispanic or Latino median income	46,805	48,542	46,927	45,139	49,034	44,190	47,536	48,018	45,147	48,723	36,851	39,629
Median Household Income by Age of Householder												
15 to 24 years	37,262	34,375	35,827	49,375	66,307	66,989	91,686	90,698	38,750	40,062	23,535	25,601
25 to 44 years	61,086	53,884	55,362	60,078	64,018	59,360	56,136	64,219	56,420	60,196	46,884	54,524
45 to 64 years	62,357	81,304	57,370	65,938	80,827	80,176	63,450	60,809	60,625	58,926	54,447	63,165
65 years and over	30,453	37,969	31,725	29,091	20,077	19,625	25,591	22,333	22,112	30,030	35,779	36,915

Source: ACS Survey Table S1903.