

APPENDIX D

HUMAN RESOURCES OF THE SEP-HCP PLAN AREA

- POPULATION ESTIMATES AND PROJECTIONS
- HOUSING CHARACTERISTICS AND PROJECTIONS
- LAND USE SUMMARY AND TRENDS

Southern Edwards Plateau Habitat Conservation Plan Population Estimates and Projections

The Southern Edwards Plateau Habitat Conservation Plan (SEP-HCP) has a Plan Area that covers 7 Texas counties, including Bexar, Medina, Bandera, Kerr, Kendall, Blanco, and Comal counties. This resource assessment reviews:

- Historic population trends;
- Current population estimates;
- Projected future population estimates between 2010 and 2040;

Population growth is one of the primary drivers of future economic growth and land development. As such, this review and analysis of population data for the Plan Area supports and is a major component of the SEP-HCP land use analysis.

Historic Population Trends

Table 1 shows the total decennial census population compiled by the U.S. Census Bureau (USCB) for the State of Texas, the 7-County SEP-HCP Plan Area, and individual Plan Area counties for 1960 through 2000.

TABLE 1. Total Population by Decennial Census: 1960 to 2000.

Area	Census Year				
	1960	1970	1980	1990	2000
State of Texas	9,579,677	11,196,730	14,229,191	16,986,510	20,851,820
7-County Plan Area	756,137	909,606	1,099,590	1,331,965	1,603,715
Bexar County	687,151	830,460	988,800	1,185,394	1,392,931
Medina County	18,904	20,249	23,164	27,312	39,304
Bandera County	3,892	4,747	7,084	10,562	17,645
Kerr County	16,800	19,454	28,780	36,304	43,653
Kendall County	5,889	6,964	10,635	14,589	23,743
Blanco County	3,657	3,567	4,681	5,972	8,418
Comal County	19,844	24,165	36,446	51,832	78,021

SOURCE: USCB (1995) and USCB (2000)

The Plan Area added approximately 847,578 people between 1960 and 2000, which represented an increase of approximately 112% over 40 years. The average annual rate of population growth

within the Plan Area was approximately 2.8% during this time period. This rate of growth was slightly lower than the overall population growth for the State of Texas, which was approximately 118% between 1960 and 2000 (an average annual growth rate of approximately 2.9%).

Between 1960 and 2000, Bexar County has had the largest portion of the Plan Area population, representing approximately 87% to 91% of the total Plan Area population in each decade. Bexar County added approximately 705,780 new people during this time period, with a growth rate of approximately 103% over the period and an average annual growth rate of approximately 2.6%. This rate of growth was slightly lower than for the Plan Area as a whole.

Bandera, Kendall, and Comal counties experienced the highest rates of growth between 1960 and 2000, with population increases of approximately 353%, 303%, and 293%, respectively. The average annual rates of growth in these counties were between approximately 8.8% and 7.3%. However, the combined population increase within these three counties only totaled approximately 89,784 new people, which represented approximately 10.6% of the total population increase within the Plan Area.

Table 2 summarizes population changes within the Plan Area between 1960 and 2000.

TABLE 2. Population Changes Between 1960 and 2000.

Area	Population Change	% Population Change	Average Annual Population Change	% Average Annual Population Change
State of Texas	11,272,143	118%	281,804	2.9%
7-County Plan Area	847,578	112%	21,189	2.8%
Bexar County	705,780	103%	17,645	2.6%
Medina County	20,400	108%	510	2.7%
Bandera County	13,753	353%	344	8.8%
Kerr County	26,853	160%	671	4.0%
Kendall County	17,854	303%	446	7.6%
Blanco County	4,761	130%	119	3.3%
Comal County	58,177	293%	1,454	7.3%

SOURCE: USCB (1995) and USCB (2000a)

Current Population Estimates

Census 2010 data are not currently available from the USCB. Therefore, multiple sources of current (i.e., Year 2010) population estimates for the Plan Area were reviewed, including estimates from the Texas State Data Center (TSDC), ESRI Business Solutions (ESRI BIS), and Woods & Poole Economics (W&P).

The ESRI BIS data provided the basis for the sector-level population projections for the Plan Area (see below for more information).

Table 3 shows various population projections for Year 2010.

TABLE 3. Census 2000 Population and 2010 Population Estimates.

Area	Census 2000 Population	TSDC 2010 Population (Scenario 2000-2007)	W&P 2010 Population	ESRI BIS 2010 Population
State of Texas	20,851,820	25,373,947	25,113,150	25,268,853
7-County Plan Area	1,603,715	1,917,113	1,952,556	1,953,376
Bexar County	1,392,931	1,636,642	1,675,880	1,672,187
Medina County	39,304	45,657	45,476	45,782
Bandera County	17,645	21,266	21,033	21,615
Kerr County	43,653	46,829	49,792	48,455
Kendall County	23,743	35,351	35,261	35,591
Blanco County	8,418	10,348	9,596	9,590
Comal County	78,021	121,020	115,518	120,156

SOURCE: USCB (2000), TSDC (2009), ESRI BIS (2009), W&P (2010).

The total population of the 7-county Plan Area in 2010 is estimated at approximately 1.95 million people, with approximately 86% of the estimated population occurring in Bexar County. Between 2000 and 2010, the population of the Plan Area is estimated to have grown by approximately 350,000 people with a growth rate of approximately 22% over the decade. This rate of growth was slightly higher than the rate of population growth for the State of Texas overall (estimated at 21% between 2000 and 2010). The estimated average annual population increase in the Plan Area between 2000 and 2010 was approximately 35,000 people, or an estimated average annual growth rate of approximately 2.2%.

Comal and Kendall counties exhibited the fastest growth rates of the seven counties in the Plan Area, with estimated growth rates of approximately 54% and 50% between 2000 and 2010, respectively. However, the estimated population growth in these two counties represented only 15% of the total population increase in the Plan between 2000 and 2010. Bexar County added the most population to the Plan Area (approximately 279,000 people) during that period. Kerr County had the lowest estimated growth rate of the counties in the Plan Area, with only an estimated 11% population increase between 2000 and 2010.

Table 4 summarizes estimated population changes in the Plan Area between 2000 and 2010, based on Census 2000 data and the population estimates provided by ESRI BIS.

TABLE 4. Estimated Population Changes Between 2000 and 2010.

Area	Population Change 2000 - 2010	% Population Change 2000 - 2010	Average Annual Population Change 2000 - 2010	% Average Annual Population Change 2000 - 2010
State of Texas	4,417,033	21%	441,703	2.1%
7-County Plan Area	349,661	22%	34,966	2.2%
Bexar County*	279,256	20%	27,926	2.0%
Medina County	6,478	16%	648	1.6%
Bandera County	3,970	22%	397	2.2%
Kerr County	4,802	11%	480	1.1%
Kendall County	11,848	50%	1,185	5.0%
Blanco County	1,172	14%	117	1.4%
Comal County	42,135	54%	4,214	5.4%

SOURCE: USCB (2000) and ESRI BIS (2009)

County-level Population Projections 2010 to 2040

The SEP-HCP has a planning duration of 30 years, extending from 2010 until 2040. Published state and county-level population projections are available from the TSDC and W&P, and ESRI BIS population and demographic data were available at the census tract level for 2009 and 2014. Wendell Davis & Associates (WDA) extended the ESRI BIS projections to 2040 using a least squares forecasting formula.

WDA used the published population projections and other data (including regional housing and land use data) to develop a specific population projection for the SEP-HCP Plan Area. WDA refined the ESRI BIS projections to adjust for anticipated housing patterns at a "sector" level. Sector boundaries were based on USCB census tract boundaries, and SEP-HCP sectors included one or more adjacent census tracts. Some portions of Bexar County were not included in a sector if they did not contain habitat for the species covered by the Plan (i.e., parts of central and southeastern Bexar County) or were primarily federal lands (i.e., Camp Bullis) that would not be eligible to participate in the Plan for incidental take coverage. The WDA sector-level population projections were primary components of the SEP-HCP land use analysis.

Table 5 reports various decadal population projections for the Plan Area between 2010 and 2040. Figure 1 graphically compares the projected population estimates reported in Table 5.

TABLE 5. Population Projections for the Plan Area by Decade Between 2010 and 2040.

Area	TSDC Scenario 2000 - 2007			
	2010	2020	2030	2040
State of Texas	25,373,947	30,858,449	37,285,486	44,872,038
7-County Plan Area	1,917,113	2,234,172	2,524,273	2,768,884
Bexar County	1,636,642	1,870,589	2,078,549	2,253,060
Medina County	45,657	50,971	53,933	54,063
Bandera County	21,266	24,406	25,737	25,238
Kerr County	46,829	49,343	49,149	46,241
Kendall County	35,351	49,401	62,749	74,353
Blanco County	10,348	12,357	13,773	14,313
Comal County	121,020	177,105	240,383	301,616

SOURCE: TSDC (2009)

Area	Woods & Poole Economics			
	2010	2020	2030	2040
State of Texas	25,113,150	29,139,680	33,276,490	37,573,000
7-County Plan Area	1,952,556	2,286,023	2,628,218	2,974,011
Bexar County	1,675,880	1,947,495	2,226,867	2,509,440
Medina County	45,476	51,690	58,136	64,680
Bandera County	21,033	24,759	28,576	32,431
Kerr County	49,792	57,610	65,663	73,814
Kendall County	35,261	47,133	59,048	70,978
Blanco County	9,596	12,195	14,840	17,507
Comal County	115,518	145,141	175,088	205,161

SOURCE: W&P (2010)

Area	ESRI BIS			
	2010	2020	2030	2040
State of Texas	25,268,853	29,640,698	34,029,392	38,418,087
7-County Plan Area	1,953,376	2,312,155	2,676,093	3,040,161
Bexar County	1,672,187	1,955,272	2,242,923	2,530,873
Medina County	45,782	52,342	59,009	65,684
Bandera County	21,615	25,690	29,824	33,960
Kerr County	48,455	53,048	57,756	62,484
Kendall County	35,591	48,320	61,149	73,951
Blanco County	9,590	10,658	11,760	12,870
Comal County	120,156	166,825	213,671	260,340

SOURCE: ESRI BIS (2009) and WDA (2010)

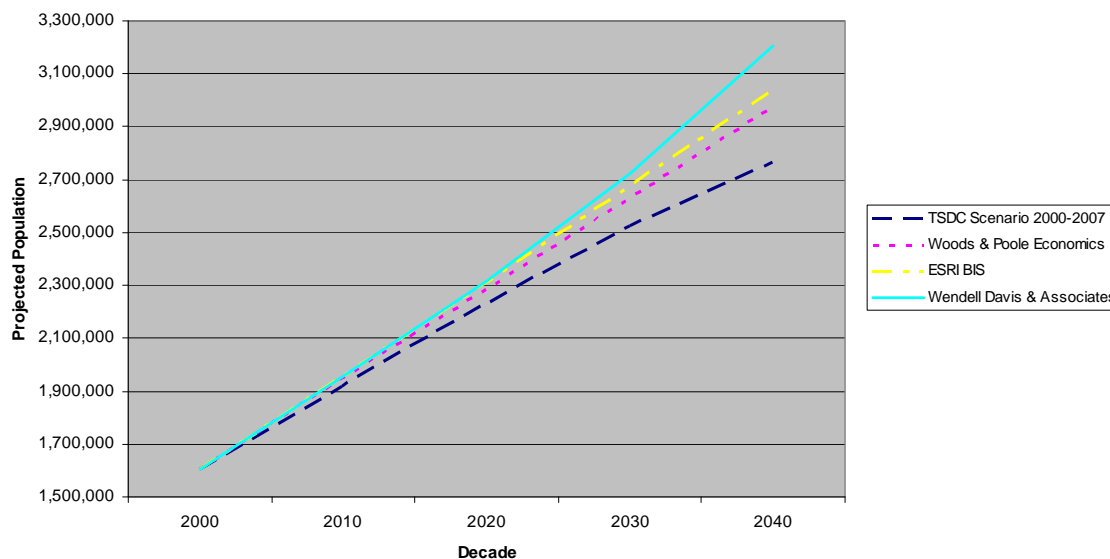
TABLE 5. Population Projections for the Plan Area by Decade Between 2010 and 2040.

Area	Wendell Davis and Associates			
	2010	2020	2030	2040
State of Texas	n/a	n/a	n/a	n/a
7-County Plan Area	1,957,797	2,318,780	2,722,881	3,205,229
Bexar County*	1,672,187	1,955,272	2,242,923	2,530,873
Medina County	46,719	53,381	78,343	143,303
Bandera County	22,141	26,406	30,205	34,004
Kerr County	49,533	56,374	61,447	80,059
Kendall County	36,081	47,516	60,099	71,442
Blanco County	9,881	11,423	12,700	14,028
Comal County	121,255	168,408	237,164	331,520

SOURCE: ESRI BIS (2009) and WDA (2010)

NOTES:

*Bexar County data are taken from the ESRI BIS projections, since the adjusted Wendell Davis & Associates projections only address a portion of the county as reported in Table 7.

FIGURE 1. Population Projections for the 7-county SEP-HCP Plan Area.

The WDA population projection is the most aggressive of the four projections evaluated for this assessment. However, WDA estimates that the average annual rate of population change across the Plan Area will be approximately 2.1 percent per year between 2010 and 2040, which is slightly lower than the historic rate of growth for this area (2.8 percent average annual growth between 1960 and 2000).

Between 2010 and 2040, the population of the Plan Area is projected to increase by approximately 1,247,000 people (an increase of approximately 64 percent over 30 years) (Table 6). Most of the new population (approximately 86 percent of the total increase) will be added to Bexar and Comal counties. Blanco and Bandera counties are expected to have the smallest increase in population during this time period. Although, Medina County is projected to experience the largest percent increase in population of the seven Plan Area counties. Table 6

summarizes the projected county-level population changes, based primarily on the WDA estimates.

TABLE 6. WDA Estimated County-level Population Changes Between 2010 and 2040.

Area	Population Change 2010 - 2040	% Population Change 2010 - 2040	Average Annual Population Change 2010 - 2040	% Average Annual Population Change 2010 - 2040
State of Texas*	13,149,234	52%	438,308	1.7%
7-County Plan Area	1,247,432	64%	41,581	2.1%
Bexar County*	858,686	51%	28,623	1.7%
Medina County	96,584	207%	3,219	6.9%
Bandera County	11,863	54%	395	1.8%
Kerr County	30,526	62%	1,018	2.1%
Kendall County	35,361	98%	1,179	3.3%
Blanco County	4,147	42%	138	1.4%
Comal County	210,265	173%	7,009	5.8%

SOURCE: ESRI BIS (2009) and WDA (2010)

NOTES:

* ESRI BIS projections are used for the State of Texas and Bexar County as a whole, since the WDA projections do not completely address these geographic areas.

Sector-level Population Projections 2010 - 2040

Figure 2 shows the boundaries of the SEP-HCP sectors, and note that only the portion of Bexar County that is relevant to the assessment of impacts for the covered species is included in the sector analysis. Table 7 summarizes the current and projected future population estimates for the 34 SEP-HCP sectors for each decade between 2000 and 2040. Table 8 summarizes estimated sector-level population changes for the same time period.

FIGURE 2. SEP-HCP Sectors and the Relative Magnitude of Projected Sector-level Population Increases Between 2010 and 2040.

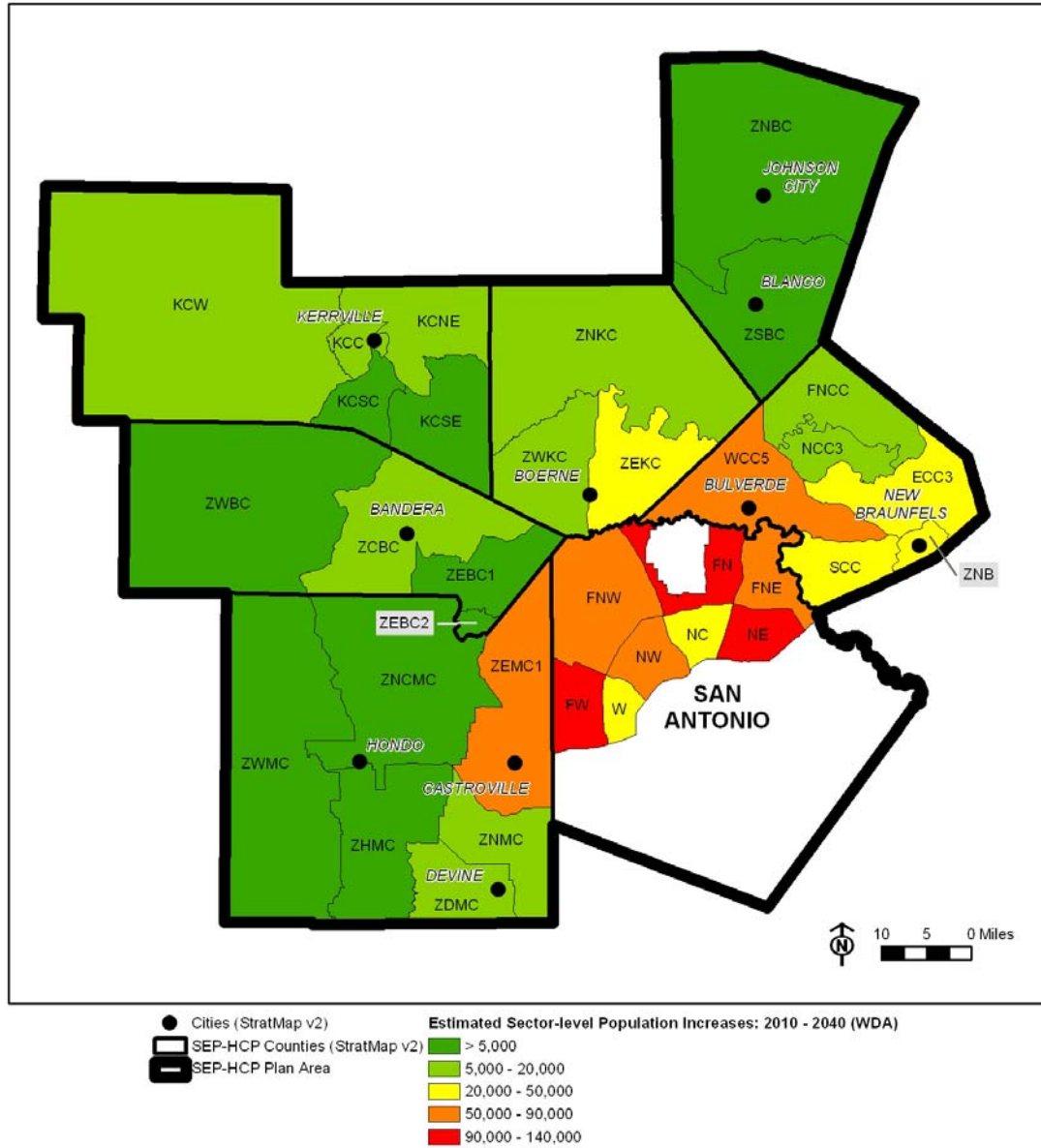


TABLE 7. Sector-level Population Projections for the Plan Area* by Decade Between 2000 and 2040.

County	SEP-HCP Sector	Census 2000 Population	Estimated Population 2010	Estimated Population 2020	Estimated Population 2030	Estimated Population 2040
Bandera	ZCBC	7,897	9,624	11,975	13,706	15,437
Bandera	ZEBC1	4,968	5,921	7,408	8,513	9,618
Bandera	ZEBC2	2,328	2,774	3,450	3,940	4,430
Bandera	ZWBC	2,452	2,902	3,573	4,046	4,520

TABLE 7. Sector-level Population Projections for the Plan Area* by Decade Between 2000 and 2040.

County	SEP-HCP Sector	Census 2000 Population	Estimated Population 2010	Estimated Population 2020	Estimated Population 2030	Estimated Population 2040
Bexar	FN	22,356	61,862	134,037	184,370	184,370
Bexar	FNE	10,947	29,668	89,043	105,302	105,302
Bexar	FNW	22,927	56,865	99,247	130,182	130,182
Bexar	FW	11,011	24,715	104,067	162,387	162,387
Bexar	NC	101,806	111,088	117,617	125,164	133,210
Bexar	NE	127,198	142,158	193,728	245,583	256,068
Bexar	NW	182,681	212,226	234,920	253,296	263,805
Bexar	W	56,640	89,928	109,602	110,334	110,334
Blanco	ZNBC	3,873	4,450	5,435	6,073	6,763
Blanco	ZSBC	4,545	5,054	5,988	6,627	7,265
Comal	FNCC	8,136	11,719	19,431	24,823	30,216
Comal	ECC3	6,465	13,139	22,483	30,530	35,716
Comal	NCC3	9,670	12,598	16,797	20,403	26,116
Comal	SCC	6,756	10,758	17,547	33,003	54,457
Comal	WCC5	12,938	23,149	36,917	63,606	110,650
Comal	ZNB	34,056	43,863	55,233	64,799	74,365
Kendall	ZEKC	11,425	17,373	25,387	32,020	38,653
Kendall	ZNKC	5,507	7,459	9,316	12,437	14,318
Kendall	ZWKC	6,811	9,460	12,813	15,642	18,471
Kerr	KCC	22,018	24,178	26,857	26,858	39,644
Kerr	KCNE	4,482	4,965	7,615	9,852	12,477
Kerr	KCSC	4,101	4,402	5,081	5,537	6,129
Kerr	KCSE	3,450	3,773	4,279	4,647	5,622
Kerr	KCW	9,602	10,735	12,541	14,553	16,187
Medina	ZDMC	6,780	7,827	9,245	10,285	13,719
Medina	ZEMC1	10,774	12,788	15,521	30,500	85,558
Medina	ZHMC	4,699	4,944	5,399	5,695	6,782
Medina	ZNCMC	6,931	7,360	8,152	9,500	10,348
Medina	ZNMC	8,502	10,306	12,706	19,137	23,097
Medina	ZWMC	1,618	1,935	2,358	3,225	3,799

SOURCE: Wendell Davis & Associates (2010)

NOTES:

*Only a portion of Bexar County is included in the sector-level analysis. County-level summaries are included in Table 5.

TABLE 8. Estimated Population Changes for SEP-HCP Sectors Between 2010 and 2040.

County	SEP-HCP Sector	Population Change 2010 - 2040	% Population Change 2010 - 2040	Average Annual Change 2010 - 2040	% Average Annual Change 2010 - 2040
Bandera	ZCBC	5,813	60%	194	2.0%
Bandera	ZEBC1	3,697	62%	123	2.1%
Bandera	ZEBC2	1,656	60%	55	2.0%
Bandera	ZWBC	1,618	56%	54	1.9%
Bexar	FN	122,508	198%	4,084	6.6%
Bexar	FNE	75,634	255%	2,521	8.5%
Bexar	FNW	73,317	129%	2,444	4.3%
Bexar	FW	137,672	557%	4,589	18.6%
Bexar	NC	22,122	20%	737	0.7%
Bexar	NE	113,910	80%	3,797	2.7%
Bexar	NW	51,579	24%	1,719	0.8%
Bexar	W	20,406	23%	680	0.8%
Blanco	ZNBC	2,313	52%	77	1.7%
Blanco	ZSBC	2,211	44%	74	1.5%
Comal	FNCC	18,497	158%	617	5.3%
Comal	ECC3	22,577	172%	753	5.7%
Comal	NCC3	13,518	107%	451	3.6%
Comal	SCC	43,699	406%	1,457	13.5%
Comal	WCC5	87,501	378%	2,917	12.6%
Comal	ZNB	30,502	70%	1,017	2.3%
Kendall	ZEKC	21,280	122%	709	4.1%
Kendall	ZNKC	6,859	92%	229	3.1%
Kendall	ZWKC	9,011	95%	300	3.2%
Kerr	KCC	15,466	64%	516	2.1%
Kerr	KCNE	7,512	151%	250	5.0%
Kerr	KCSC	1,727	39%	58	1.3%
Kerr	KCSE	1,849	49%	62	1.6%
Kerr	KCW	5,452	51%	182	1.7%
Medina	ZDMC	5,892	75%	196	2.5%
Medina	ZEMC1	72,770	569%	2,426	19.0%
Medina	ZHMC	1,838	37%	61	1.2%
Medina	ZNCMC	2,988	41%	100	1.4%
Medina	ZNMC	12,791	124%	426	4.1%
Medina	ZWMC	1,864	96%	62	3.2%

SOURCE: WDA (2010)

NOTES: Only a portion of Bexar County is included in the sector-level analysis. County-level summaries are included in Table 6.

Generally, the largest population increases between 2010 and 2040 are projected to occur in Bexar County sectors, particularly around Camp Bullis, along Interstate Highway 35, and the far west side of the county. Other high-growth areas include sectors in Comal, eastern Medina, and southern Kendall counties. The sectors with projected population increases of greater than 20,000 people (a combined increase of approximately 896,000 people) represent approximately 88% percent of the total projected population growth for all sectors in the study.

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Southern Edwards Plateau Habitat Conservation Plan **Housing Characteristics and Projections**

The Southern Edwards Plateau Habitat Conservation Plan (SEP-HCP) has a Plan Area that covers 7 Texas counties, including Bexar, Medina, Bandera, Kerr, Kendall, Blanco, and Comal counties. This resource assessment reviews:

- Current housing characteristics; and
- Projected future housing estimates between 2010 and 2040.

This review and analysis of housing data for the Plan Area builds upon the information presented in the Population Estimates and Projections resource assessment. Regional housing characteristics and housing market trends influence the geographic distribution of the population and contribute to how land uses change over time.

This assessment is based primarily on housing information collected from the U.S. Census Bureau (USCB) and county appraisal districts by Wendell Davis & Associates (WDA) (USCB 2000, WDA 2010). Summaries of housing characteristics are reported for the Plan Area as a whole, for individual counties, and for each of 34 individual “sectors” that are comprised of one or more adjacent Census 2000 census tracts. However, this analysis excludes the southern half of Bexar County, since the southern portions of the county do not contain habitat for the species covered by the SEP-HCP. The analysis also excludes Camp Bullis, since this military installation would not be eligible to participate in the Plan for incidental take coverage and is not subject to the same types of factors that drive population and housing changes in the rest of the Plan Area. Therefore, information reported for Bexar County and for the Plan Area is limited to the areas included in the SEP-HCP sectors, as shown in Figure 1.

Current Housing Characteristics

Housing data collected from the USCB Census 2000 (the most recent census data available) included the following with definitions provided by the USCB American Fact Finder Glossary (USCB 2000):

- **Total Population** – the total number of persons counted by the 2000 Census.
- **Population in Households** – the number of persons living in housing units as their usual place of residence.
- **Group Quarters Population** – the number of persons living in group quarters, such as correctional institutions, nursing homes, juvenile institutions, college dormitories, military quarters, and group homes.
- **Housing Units** – a house, an apartment, a mobile home or trailer, a group of rooms, or a single room occupied as separate living quarters, or if vacant, intended for occupancy as separate living quarters. Separate living quarters are those in which the occupants live separately from any other individuals in the building and which have direct access from outside the building or through a common hall.
- **Households** - a household includes all persons who occupy a housing unit as their usual place of residence.

Table 1 summarizes these Census 2000 housing data for the Plan Area at the sector level. Table 1 also includes two additional summary statistics based on this data: the **Population per Household** (the average number of persons in a household; excludes the group quarters population) and **Occupancy Rate for Housing Units** (the ratio of households to housing units).

TABLE 1. Sector-level Census 2000 Data for Households and Housing Units.

County	SEP-HCP Sector	Total Pop.	Pop. in Households	Group Quarters Pop.	Number of Housing Units	Number of Households	Pop. per Household	Housing Unit Occupancy Rate
Bexar	FNW	22,927	22,850	77	8,872	8,441	2.71	95%
Bexar	FW	11,011	10,915	96	4,012	3,857	2.83	96%
Bexar	NC	101,806	101,273	533	47,162	43,715	2.32	93%
Bexar	NE	127,198	126,553	645	52,206	49,394	2.56	95%
Bexar	NW	182,681	180,432	2,249	73,993	70,413	2.56	95%
Bexar	W	56,640	56,601	39	19,465	18,645	3.04	96%
Bexar County*		535,566	531,817	3,749	217,632	205,685	2.59	95%
Blanco	ZNBC	3,873	3,819	54	1,923	1,542	2.48	80%
Blanco	ZSBC	4,545	4,446	99	2,108	1,761	2.52	84%
Blanco County		8,418	8,265	153	4,031	3,303	2.50	82%
Comal	FNCC	8,136	8,124	12	4,007	3,199	2.54	80%
Comal	ECC3	6,465	6,452	13	2,454	2,291	2.82	93%
Comal	NCC3	9,670	9,631	39	5,047	4,042	2.38	80%
Comal	SCC	6,756	6,751	5	2,458	2,347	2.88	95%
Comal	WCC5	12,938	12,913	25	4,808	4,503	2.87	94%
Comal	ZNB	34,056	32,884	1,172	13,944	12,684	2.59	91%
Comal County		78,021	76,755	1,266	32,718	29,066	2.64	89%
Kendall	ZEKC	11,425	11,049	376	4,320	4,062	2.72	94%
Kendall	ZNKC	5,507	5,404	103	2,600	2,060	2.62	79%
Kendall	ZWKC	6,811	6,811	-	2,689	2,491	2.73	93%
Kendall County		23,743	23,264	479	9,609	8,613	2.70	90%
Kerr	KCC	22,018	20,878	1,140	9,832	9,012	2.32	92%
Kerr	KCNE	4,482	4,215	267	2,036	1,848	2.28	91%
Kerr	KCSC	4,101	4,089	12	1,944	1,757	2.33	90%
Kerr	KCSE	3,450	3,426	24	1,584	1,345	2.55	85%
Kerr	KCW	9,602	9,274	328	4,832	3,851	2.41	80%
Kerr County		43,653	41,882	1,771	20,228	17,813	2.35	88%
Medina	ZDMC	6,780	6,639	141	2,594	2,346	2.83	90%
Medina	ZEMC1	10,774	10,687	87	4,136	3,640	2.94	88%
Medina	ZHMC	4,699	4,674	25	1,951	1,688	2.77	87%
Medina	ZNCMC	6,931	5,513	1,418	2,325	1,938	2.84	83%
Medina	ZNMC	8,502	8,441	61	3,035	2,679	3.15	88%
Medina	ZWMC	1,618	1,618	-	785	589	2.75	75%
Medina County		39,304	37,572	1,732	14,826	12,880	2.92	87%
7-COUNTY PLAN AREA*		746,350	737,019	9,331	308,547	284,370	2.59	92%

Source: USCB 2000 and WDA 2010.

Notes:

*Includes only portions of Bexar County and the Plan Area that are within a SEP-HCP sector.

Single-family residential land use is the dominant type of developed land use across the Plan Area (see the [Land Use and Development](#) resource assessment for more information) and the construction of new single-family housing is a primary driver of land development patterns. WDA estimated the number of single-family housing units from county appraisal district data circa 2009. WDA assumed that the number of parcels classified by the county appraisal districts as single-family residential use approximated the number of single-family housing units. WDA also assumed that the difference between the total number of housing units (based on census data) and the estimated number of single-family housing units (based on appraisal district data) approximated the number of non-single-family housing units.

To properly relate the time period of the census data (circa 2000) with the county appraisal district data (circa 2009), the housing-related census data was projected forward to 2009 based on the WDA population projections described in the [Population Estimates and Projections](#) resource assessment. Table 2 summarizes the 2009 projected census-based housing data and the single-family and non-single-family housing unit estimates based on county appraisal district data.

TABLE 2. 2009 Estimated Housing Data for SEP-HCP Sectors.

County	Sector	Total Pop.	Pop. in Households	Number of Households	Total Number of Housing Units	Single-Family Housing Units	% Single-Family Housing Units	Non-Single-Family Housing Units
Bandera	ZCBC	9,624	9,567	3,811	4,567	2,815	62%	1,752
Bandera	ZEBC1	5,921	5,921	2,169	2,777	2,070	75%	707
Bandera	ZEBC2	2,774	2,774	1,201	2,152	1,620	75%	532
Bandera	ZWBC	2,902	2,778	1,178	2,004	1,248	62%	756
Bandera County		21,221	21,040	8,359	11,500	7,753	67%	3,747
Bexar	FN	61,862	61,859	20,719	30,874	23,183	75%	7,691
Bexar	FNE	29,668	29,561	9,716	14,823	11,896	80%	2,927
Bexar	FNW	56,865	56,788	20,425	21,995	20,141	92%	1,060
Bexar	FW	24,715	24,619	8,700	12,968	10,167	78%	2,801
Bexar	NC	111,088	110,555	47,135	51,571	27,642	54%	23,929
Bexar	NE	142,158	141,513	53,804	70,657	41,405	59%	29,252
Bexar	NW	212,226	209,977	80,642	86,198	51,592	60%	24,056
Bexar	W	89,928	89,889	29,367	31,318	25,987	83%	5,331
Bexar County*		728,510	724,761	270,508	320,404	212,013	66%	108,391
Blanco	ZNBC	4,450	4,396	1,753	2,228	1,675	75%	553
Blanco	ZSBC	5,054	4,955	1,943	2,389	1,813	76%	576
Blanco County		9,504	9,351	3,696	4,617	3,488	76%	1,129
Comal	FNCC	11,719	11,707	4,615	6,034	5,304	88%	1,531
Comal	ECC3	13,139	13,126	4,610	5,024	4,556	91%	468
Comal	NCC3	12,598	12,559	5,254	6,828	5,695	83%	1,133
Comal	SCC	10,758	10,753	3,679	3,935	3,451	88%	678
Comal	WCC5	23,149	23,124	8,030	8,740	7,146	82%	1,594
Comal	ZNB	43,863	42,691	16,435	18,446	10,987	60%	7,459
Comal County		115,226	113,960	42,623	49,007	37,139	76%	11,868
Kendall	ZEKC	17,373	16,997	6,135	6,640	5,389	81%	1,251
Kendall	ZNKC	7,459	7,356	2,776	3,677	1,470	40%	2,207

TABLE 2. 2009 Estimated Housing Data for SEP-HCP Sectors.

County	Sector	Total Pop.	Pop. in Households	Number of Households	Total Number of Housing Units	Single-Family Housing Units	% Single-Family Housing Units	Non-Single-Family Housing Units
Kendall	ZWKC	9,460	9,460	3,457	3,856	2,451	64%	1,405
Kendall County		34,292	33,813	12,368	14,173	9,310	66%	4,863
Kerr	KCC	24,178	23,038	9,876	10,949	8,348	76%	3,334
Kerr	KCNE	4,965	4,698	2,054	2,336	1,239	53%	1,452
Kerr	KCSC	4,402	4,390	1,879	2,137	1,983	93%	154
Kerr	KCSE	3,773	3,749	1,475	1,779	952	54%	827
Kerr	KCW	10,735	10,407	4,306	5,557	3,272	59%	2,285
Kerr County		48,053	46,282	19,590	22,758	15,794	69%	6,964
Medina	ZDMC	7,827	7,686	2,722	3,013	1,828	61%	1,185
Medina	ZEMC1	12,788	12,701	4,344	4,943	3,075	62%	1,869
Medina	ZHMC	4,944	4,919	1,780	2,078	1,311	63%	767
Medina	ZNCMC	7,360	5,942	2,060	2,481	1,753	71%	728
Medina	ZNMC	10,306	10,245	3,225	3,656	2,307	63%	1,349
Medina	ZWMC	1,935	1,935	707	935	590	63%	345
Medina County		45,160	43,428	14,838	17,106	10,864	64%	6,242
7-COUNTY PLAN AREA*								
		1,001,966	992,635	371,982	439,565	296,361	67%	143,204

SOURCE: Environmental Research Institute Business Information Solutions (ESRI BIS) 2009 and WDA 2010.

Notes:

*Includes only portions of Bexar County and the Plan Area that are within a SEP-HCP sector.

Projected Future Housing

Population changes establish the overall demand for new housing in the SEP-HCP Plan Area. For each SEP-HCP sector, WDA related the projected changes in population to household characteristics identified from 2000 Census data and county appraisal district land use data (such as population per household, housing unit occupancy rates, and the proportion of single-family housing units) to estimate future housing needs between 2010 and 2040. WDA generally projected future single-family housing units for each sector using a least squares forecasting trend derived from projected 2000 to 2014 population growth rates. WDA also adjusted the values as needed based on longer-term historical growth rates and market factors to better approximate realistic conditions.

Estimates of the Total Population for each sector in 2010, 2020, 2030, and 2040 are provided in the Population Estimates and Projections resource assessment (WDA 2010). Table 3 shows the projected number of Total Housing Units and Single-Family Housing Units for each sector by decade between 2010 and 2040.

TABLE 3. Projected Housing Unit Estimates for the SEP-HCP Plan Area.

County	Sector	Projected Total Housing Units				Projected Single-family Housing Units			
		2010	2020	2030	2040	2010	2020	2030	2040
Bandera	ZCBC	4,660	5,435	6,225	7,014	2,872	3,443	4,013	4,584
Bandera	ZEBC1	2,830	3,322	3,818	4,314	2,110	2,505	2,900	3,295

TABLE 3. Projected Housing Unit Estimates for the SEP-HCP Plan Area.

County	Sector	Projected Total Housing Units				Projected Single-family Housing Units			
		2010	2020	2030	2040	2010	2020	2030	2040
Bandera	ZEBC2	2,191	2,550	2,912	3,274	1,649	1,939	2,230	2,520
Bandera	ZWBC	2,042	2,360	2,684	3,008	1,272	1,507	1,742	1,977
Bandera County		11,722	13,668	15,639	17,610	7,902	9,393	10,884	12,375
Bexar	FN	33,147	45,721	62,891	62,891	23,866	34,783	48,196	48,196
Bexar	FNE	17,168	28,819	34,087	34,087	12,498	22,899	27,041	27,041
Bexar	FNW	22,493	35,722	46,865	46,865	21,368	33,215	43,827	43,827
Bexar	FW	14,657	36,871	57,553	57,553	11,491	29,824	46,832	46,832
Bexar	NC	50,993	53,843	57,314	61,014	27,689	29,209	31,603	34,130
Bexar	NE	68,740	76,365	96,874	101,021	41,450	45,442	55,874	58,879
Bexar	NW	76,087	91,990	98,580	102,707	51,891	55,987	60,987	64,118
Bexar	W	31,918	36,509	36,754	36,754	26,485	30,423	30,632	30,632
Bexar County*		315,201	405,841	490,917	502,891	216,738	281,781	344,991	353,654
Blanco	ZNBC	2,262	2,578	2,883	3,214	1,700	1,955	2,200	2,465
Blanco	ZSBC	2,420	2,712	3,007	3,301	1,837	2,074	2,311	2,548
Blanco County		4,682	5,290	5,890	6,514	3,537	4,029	4,511	5,012
Comal	FNCC	6,311	9,841	12,574	15,307	5,548	7,986	10,424	12,861
Comal	ECC3	5,323	8,289	11,257	13,170	4,828	7,543	10,258	12,008
Comal	NCC3	7,026	8,945	10,869	13,919	5,860	7,511	9,161	11,777
Comal	SCC	4,147	6,229	11,717	19,335	3,637	5,494	10,381	17,164
Comal	WCC5	9,194	13,563	23,376	40,672	7,517	11,225	19,524	34,152
Comal	ZNB	18,931	22,904	26,957	31,010	11,276	14,162	17,048	19,934
Comal County		50,931	69,772	96,751	133,413	38,665	53,920	76,795	107,896
Kendall	ZEKC	6,898	9,375	11,861	14,347	5,598	7,690	9,782	11,875
Kendall	ZNKC	3,797	4,519	6,050	6,973	1,518	1,996	2,953	3,530
Kendall	ZWKC	3,986	5,093	6,217	7,342	2,533	3,358	4,182	5,006
Kendall County		14,680	18,987	24,129	28,662	9,649	13,044	16,917	20,410
Kerr	KCC	10,949	11,682	11,683	17,491	8,348	8,348	8,349	13,042
Kerr	KCNE	2,473	3,512	4,580	5,835	1,312	2,039	2,766	3,620
Kerr	KCSC	2,158	2,372	2,585	2,862	2,003	2,202	2,401	2,659
Kerr	KCSE	1,801	1,966	2,136	2,586	964	1,080	1,195	1,503
Kerr	KCW	5,638	6,293	7,330	8,172	3,319	3,794	4,528	5,125
Kerr County		23,019	25,825	28,314	36,946	15,946	17,462	19,239	25,949
Medina	ZDMC	3,060	3,446	3,839	5,139	1,856	2,139	2,421	3,354
Medina	ZEMC1	5,033	5,788	11,406	32,055	3,130	3,688	7,765	22,749
Medina	ZHMC	2,092	2,212	2,334	2,781	1,320	1,409	1,498	1,825
Medina	ZNCMC	2,498	2,655	3,187	3,521	1,765	1,888	2,299	2,557
Medina	ZNMC	3,725	4,312	6,505	7,855	2,350	2,786	4,388	5,374
Medina	ZWMC	952	1,093	1,496	1,762	601	706	1,000	1,194
Medina County		17,359	19,507	28,766	53,113	11,023	12,615	19,370	37,053

TABLE 3. Projected Housing Unit Estimates for the SEP-HCP Plan Area.

County	Sector	Projected Total Housing Units				Projected Single-family Housing Units			
		2010	2020	2030	2040	2010	2020	2030	2040
7-COUNTY PLAN AREA*		437,595	558,890	690,406	779,150	303,460	392,244	492,708	562,350

SOURCE: WDA 2010

NOTES:

*Includes only portions of Bexar County and the Plan Area that are within a SEP-HCP sector.

Table 4 summarizes the projected demand for new housing units in each sector between 2010 and 2040. Bexar County is projected to have the largest demand for new housing units between 2010 and 2040, with a projected increase of more than 187,000 housing units. Although, the relative change in housing units is projected to be greatest for Medina and Comal counties with a projected increases in total housing units of more than 150 percent. Blanco County is projected to have the smallest increase in housing units of the seven Plan Area counties.

TABLE 4. Projected Changes in Housing Units for the Plan Area (2010 - 2040).

County	Sector	Change in Total Housing Units (2010 - 2040)				Change in Single-family Housing Units (2010 - 2040)			
		Change	% Chng.	Ave. Annual Chng.	% Ave. Annual Chng.	Change	% Chng.	Ave. Annual Chng.	% Ave. Annual Chng.
Bandera	ZCBC	2,354	51%	78	1.7%	1,711	60%	57	2.0%
Bandera	ZEBC1	1,484	52%	49	1.7%	1,185	56%	40	1.9%
Bandera	ZEBC2	1,084	49%	36	1.6%	871	53%	29	1.8%
Bandera	ZWBC	967	47%	32	1.6%	706	56%	24	1.9%
Bandera County		5,888	50%	196	1.7%	4,473	57%	149	1.9%
Bexar	FN	29,743	90%	991	3.0%	24,330	102%	811	3.4%
Bexar	FNE	16,920	99%	564	3.3%	14,543	116%	485	3.9%
Bexar	FNW	24,373	108%	812	3.6%	22,459	105%	749	3.5%
Bexar	FW	42,896	293%	1,430	9.8%	35,341	308%	1,178	10.3%
Bexar	NC	10,021	20%	334	0.7%	6,441	23%	215	0.8%
Bexar	NE	32,281	47%	1,076	1.6%	17,429	42%	581	1.4%
Bexar	NW	26,620	35%	887	1.2%	12,227	24%	408	0.8%
Bexar	W	4,835	15%	161	0.5%	4,147	16%	138	0.5%
Bexar County		187,690	60%	6,256	2.0%	136,916	63%	4,564	2.1%
Blanco	ZNBC	952	42%	32	1.4%	764	45%	26	1.5%
Blanco	ZSBC	880	36%	29	1.2%	711	39%	24	1.3%
Blanco County		1,832	39%	61	1.3%	1,475	42%	49	1.4%
Comal	FNCC	8,995	143%	300	4.8%	7,314	132%	244	4.4%
Comal	ECC3	7,847	147%	262	4.9%	7,180	149%	239	5.0%
Comal	NCC3	6,893	98%	230	3.3%	5,917	101%	197	3.4%
Comal	SCC	15,188	366%	506	12.2%	13,528	372%	451	12.4%
Comal	WCC5	31,478	342%	1,049	11.4%	26,635	354%	888	11.8%
Comal	ZNB	12,080	64%	403	2.1%	8,658	77%	289	2.6%
Comal County		82,481	162%	2,749	5.4%	69,232	179%	2,308	6.0%
Kendall	ZEKC	7,450	108%	248	3.6%	6,276	112%	209	3.7%

TABLE 4. Projected Changes in Housing Units for the Plan Area (2010 - 2040).

County	Sector	Change in Total Housing Units (2010 - 2040)				Change in Single-family Housing Units (2010 - 2040)			
		Change	% Chng.	Ave. Annual Chng.	% Ave. Annual Chng.	Change	% Chng.	Ave. Annual Chng.	% Ave. Annual Chng.
Kendall	ZNKC	3,176	84%	106	2.8%	2,012	133%	67	4.4%
Kendall	ZWKC	3,356	84%	112	2.8%	2,473	98%	82	3.3%
Kendall County		13,982	95%	466	3.2%	10,761	112%	359	3.7%
Kerr	KCC	6,542	60%	218	2.0%	4,694	56%	156	1.9%
Kerr	KCNE	3,362	136%	112	4.5%	2,308	176%	77	5.9%
Kerr	KCSC	703	33%	23	1.1%	656	33%	22	1.1%
Kerr	KCSE	785	44%	26	1.5%	539	56%	18	1.9%
Kerr	KCW	2,534	45%	84	1.5%	1,806	54%	60	1.8%
Kerr County		13,927	61%	464	2.0%	10,003	63%	333	2.1%
Medina	ZDMC	2,080	68%	69	2.3%	1,498	81%	50	2.7%
Medina	ZEMC1	27,022	537%	901	17.9%	19,619	627%	654	20.9%
Medina	ZHMC	689	33%	23	1.1%	505	38%	17	1.3%
Medina	ZNMC	1,023	41%	34	1.4%	792	45%	26	1.5%
Medina	ZNMC	4,130	111%	138	3.7%	3,024	129%	101	4.3%
Medina	ZWMC	810	85%	27	2.8%	593	99%	20	3.3%
Medina County		35,754	206%	1,192	6.9%	26,030	236%	868	7.9%
7-COUNTY PLAN AREA		341,555	78%	11,385	1.7%	258,891	85%	8,630	2.8%

SOURCE: WDA 2010

NOTES:

*Includes only portions of Bexar County and the Plan Area that are within a SEP-HCP sector.

The housing numbers shown in Table 3 and Table 4 represent the base-level projected demand for new housing units across the Plan Area. These projections do not consider other practical factors (such as landscape, market, or regulatory challenges) that would be expected to influence where new housing is located. These additional factors are considered in the Land Use and Development resource assessment.

References

U.S. Census Bureau (USCB). 2000. Households and Housing Units (Tables P15, P16, P17, P37, and H1). Census 2000 Summary File 1 (SF 1) 100-Percent Data. U.S. Census Bureau. Accessed November 2, 2010.

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Wendell Davis and Associates (WDA). 2010. Population and housing projections for the Southern Edwards Plateau Habitat Conservation Plan. Version date: December 17, 2010. Prepared for Loomis Partners, Inc. Wendell Davis and Associates, San Antonio, TX.

Southern Edwards Plateau Habitat Conservation Plan **Land Use Summary and Trends**

The Southern Edwards Plateau Habitat Conservation Plan (SEP-HCP) has a Plan Area that covers seven Texas counties, including Bexar, Medina, Bandera, Kerr, Kendall, Blanco, and Comal counties. This resource assessment reviews:

- Current land uses;
- Review of land development trends and influential factors; and
- Projected land uses over the duration of the SEP-HCP.

This review and analysis of land use data for the Plan Area supports the Impacts Analysis for the SEP-HCP and related environmental documents.

This assessment is based on population projections, housing data, and land use information from county appraisal districts collected by Wendell Davis & Associates (WDA) (WDA 2010). Summaries of land uses are reported for the Plan Area as a whole, for individual counties, and for each of 34 individual “sectors” that are comprised of one or more adjacent Census 2000 census tracts. However, this analysis excludes the southern half of Bexar County, since the southern portions of the county do not contain habitat for the species covered by the SEP-HCP. The analysis also excludes Camp Bullis, since this military installation would not be eligible to participate in the Plan for incidental take coverage and is not subject to the same types of factors that drive population and housing changes in the rest of the Plan Area. Therefore, information reported for Bexar County and for the Plan Area is limited to the areas included in the SEP-HCP sectors, as shown in Figure 1.

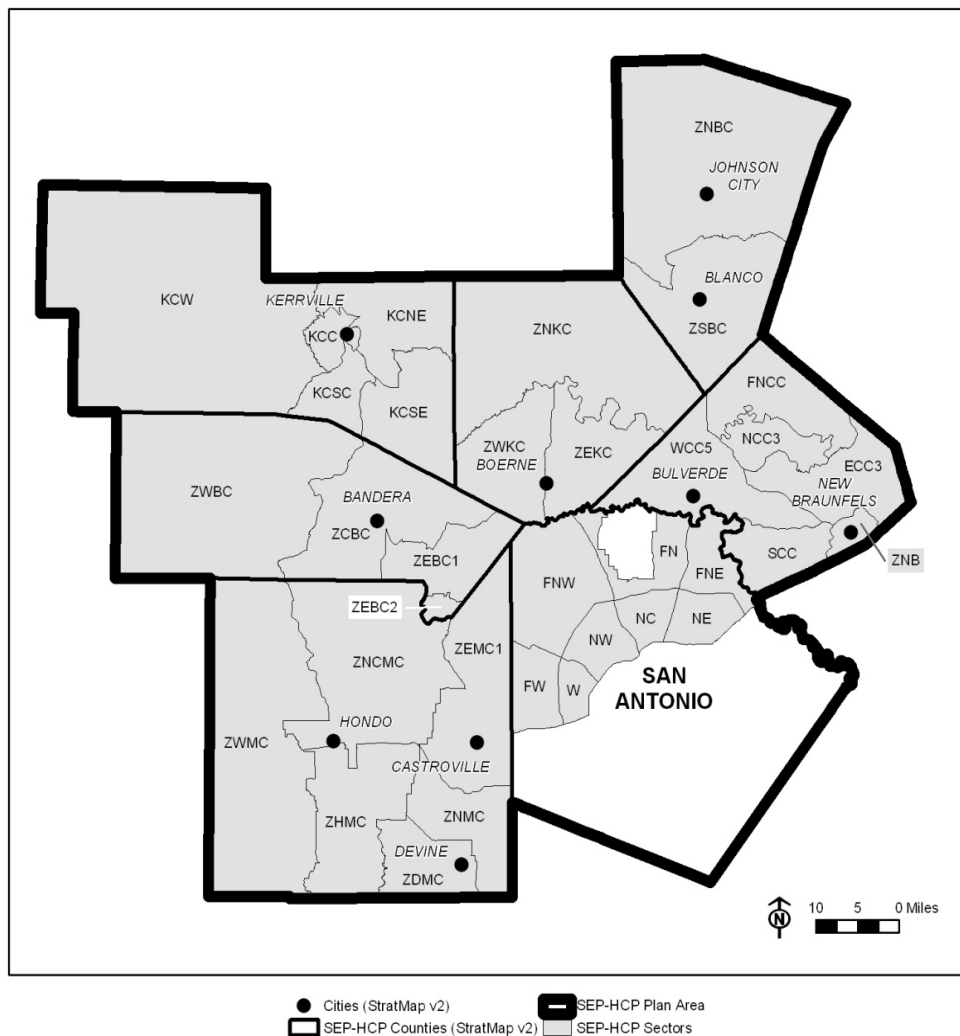
Current Land Uses

Jurisdictions

The SEP-HCP Plan Area includes approximately 4.1 million acres with land uses that vary from densely urban to remote and rural. In addition to the seven Texas counties, the Plan Area includes all or part of 42 cities, including San Antonio, New Braunfels, Schertz, Leon Valley, Live Oak, Hondo, Boerne, Helotes, Kerrville, Bandera, and Blanco. The population of these 42 different cities (per the 2000 Census) ranges from just over 100 to over 1 million people. Areas within a city limit occupy approximately 470,600 acres or 11 percent of the Plan Area (SAM, Inc. 2006). The majority of the Plan Area is relatively rural and is unincorporated (subject to county-level government) or included in the extraterritorial jurisdiction of a city. The Plan Area is partially included in the eight-county San Antonio – New Braunfels Metropolitan Statistical Area (including Bandera, Bexar, Comal, Kendall, and Medina counties) (U.S. Office of Management and Budget 2009), which is the third largest metropolitan area in Texas.

2009 Land Use Distribution

Wendell Davis & Associates (WDA) collected land use information for parcels within the Plan Area from county appraisal districts (the time period of the data was circa 2009) (see list of data sources in the Reference section). WDA summarized the data into general classes for single-family residential uses, non-single family residential uses, commercial and industrial uses, exempt properties, transportation and utility rights-of-way, “available” undeveloped uses (including agricultural lands or vacant platted properties that may be available for future development), and miscellaneous other or unclassified uses (WDA 2010). Table 1 more fully describes the land use classifications used in this analysis.

FIGURE 1. SEP-HCP Sectors Included in the Land Use Analysis.**TABLE 1. General Land Use Categories Summarized from 2009 County Appraisal District Data.**

General Land Use Category	Description
Single-family Residential	Based on the total acreage of parcels designated by the county appraisal district with a State Property Tax Board code of "A". Includes properties developed with stand alone single-family residences or manufactured homes on single-family lots.
Non-single-family Residential	Based on the total acreage of parcels designated by the county appraisal district with a State Property Tax Board code of "B". Includes properties developed with apartment buildings, mobile home parks, multi-plex structures, and similar public and private dwelling units.

TABLE 1. General Land Use Categories Summarized from 2009 County Appraisal District Data.

General Land Use Category	Description
Commercial and Industrial	Based on the total acreage of parcels designated by the county appraisal district with a State Property Tax Board code of "F". Includes properties developed as retail and other shopping center uses, office, wholesale, industrial, and other commercial uses.
Exempt	Based on the total acreage of parcels designated by the county appraisal district with a State Property Tax Board code of "EX" or "X". Includes exempt properties such as public-owned lands, lands owned by non-profit or religious and charitable organizations, schools, railroad property, and others. Also known to include some park or preserve land.
Transportation and Utility Rights-of-way	Estimated as between 15 and 30 percent of the total acres of the other developed land uses (residential, commercial/industrial, and exempt). Higher percentages were used for more urban areas with denser development. Estimation was necessary for this land use class because county appraisal districts do not typically tract lands used as rights-of-way for transportation networks or utilities.
Available Lands	Based on the total acreage of parcels designated by the county appraisal district as vacant platted lots, unoccupied residential lots in builder inventory, agricultural lands, and lands with farm and ranch-related improvements. Corresponds to properties classified with State Property Tax Board codes of "C", "D", "E", or "O". These lands are assumed to be available for future development or occupancy.
Other and Unclassified	Includes lands with other miscellaneous State Property Tax Board codes and lands that are not classified in county appraisal district records (including public lands that are not recorded on county tax rolls). Known to include some areas of parkland or preserves (such as Government Canyon State Natural Area) and large water bodies (such as Canyon Lake). The acres assigned to this category were also adjusted to account for the remaining geographic area of a sector not included in the other land use categories due to incomplete appraisal district parcel records. Land in this category is generally assumed to be unavailable for future development.

Table 2 includes a summary of general 2009 land uses estimated for each SEP-HCP sector. Sector boundaries were based on U.S. Census Bureau census tract boundaries, and SEP-HCP sectors included one or more adjacent census tracts. Some portions of Bexar County were not included in a sector if they did not contain habitat for the species covered by the Plan (i.e., parts of central and southeastern Bexar County) or were primarily federal lands (i.e., Camp Bullis) that would not be eligible to participate in the Plan for incidental take coverage.

TABLE 2. General Land Uses within the SEP-HCP Plan Area in 2009 (acres).

County	SEP-HCP Sector	Single-Family Res.	Non-Single-Family Res.	Comm. and Industrial	Exempt	Transp. and Utility ROW	Available Lands	Other and Unclass. Uses
Bandera	ZCBC	8,217	292	2,047	3,213	2,073	76,777	44,294
Bandera	ZEBC1	6,995	141	200	26	1,105	28,249	24,074
Bandera	ZEBC2	923	1,117	391	13	367	1,480	2,940
Bandera	ZWBC	4,411	1,886	740	2,228	927	160,245	134,946
Bandera County		20,546	3,436	3,377	5,479	4,473	266,750	206,254
Bexar	FN	12,235	344	85	123	2,570	16,844	5,117
Bexar	FNE	6,948	344	5,689	35	2,605	17,038	4,357
Bexar	FNW	16,402	179	3,763	705	5,919	25,645	39,406
Bexar	FW	4,365	476	2,449	50	1,513	25,414	602
Bexar	NC	10,121	1,347	3,165	113	2,980	4,168	901
Bexar	NE	8,901	1,180	4,752	163	3,066	7,295	3,357
Bexar	NW	11,070	1,706	5,091	98	3,638	6,806	2,462
Bexar	W	4,699	361	3,056	43	1,645	5,721	972
Bexar County*		74,740	5,937	28,050	1,329	23,936	108,933	57,174
Blanco	ZNBC	1,166	146	161	352	292	213,357	103,691
Blanco	ZSBC	2,065	121	174	381	287	90,523	43,872
Blanco County		3,231	266	335	732	579	303,880	147,563
Comal	FNCC	9,938	2,228	2,043	1,042	1,529	36,843	26,992
Comal	ECC3	9,599	1,270	1,380	1,844	2,116	12,596	70,637
Comal	NCC3	4,224	448	682	106	822	17,988	10,632
Comal	SCC	5,423	281	4,156	405	1,541	36,533	1,497
Comal	WCC5	17,659	1,591	2,450	7,079	5,757	33,751	37,011
Comal	ZNB	3,476	634	1,842	1,093	1,422	4,481	1,666
Comal County		50,318	6,451	12,553	11,570	13,188	142,192	148,435
Kendall	ZEKC	12,272	1,623	999	1,423	2,449	59,126	2,759
Kendall	ZNKC	3,322	2,015	411	908	1,010	232,923	20,646
Kendall	ZWKC	5,316	1,607	750	563	825	61,710	11,629
Kendall County		20,910	5,246	2,160	2,894	4,284	353,760	35,034
Kerr	KCC	3,777	205	744	1,753	1,580	6,609	5,390
Kerr	KCNE	898	1,338	426	260	467	61,513	21,479
Kerr	KCSC	1,491	67	274	416	337	22,062	10,070
Kerr	KCSE	1,034	360	630	200	336	65,135	15,414
Kerr	KCW	7,541	1,384	13	8,254	1,721	343,970	121,690
Kerr County		14,742	3,353	2,087	10,883	4,441	499,289	174,042
Medina	ZDMC	3,382	697	241	384	726	37,886	12,635
Medina	ZEMC1	21,802	1,699	406	646	3,718	88,804	12,655
Medina	ZHMC	2,262	404	173	275	481	90,983	18,649
Medina	ZNCMC	19,696	658	231	368	3,162	117,718	57,947
Medina	ZNMC	11,950	843	305	484	2,063	52,264	3,593
Medina	ZWMC	9,222	493	78	124	996	191,324	81,456

TABLE 2. General Land Uses within the SEP-HCP Plan Area in 2009 (acres).

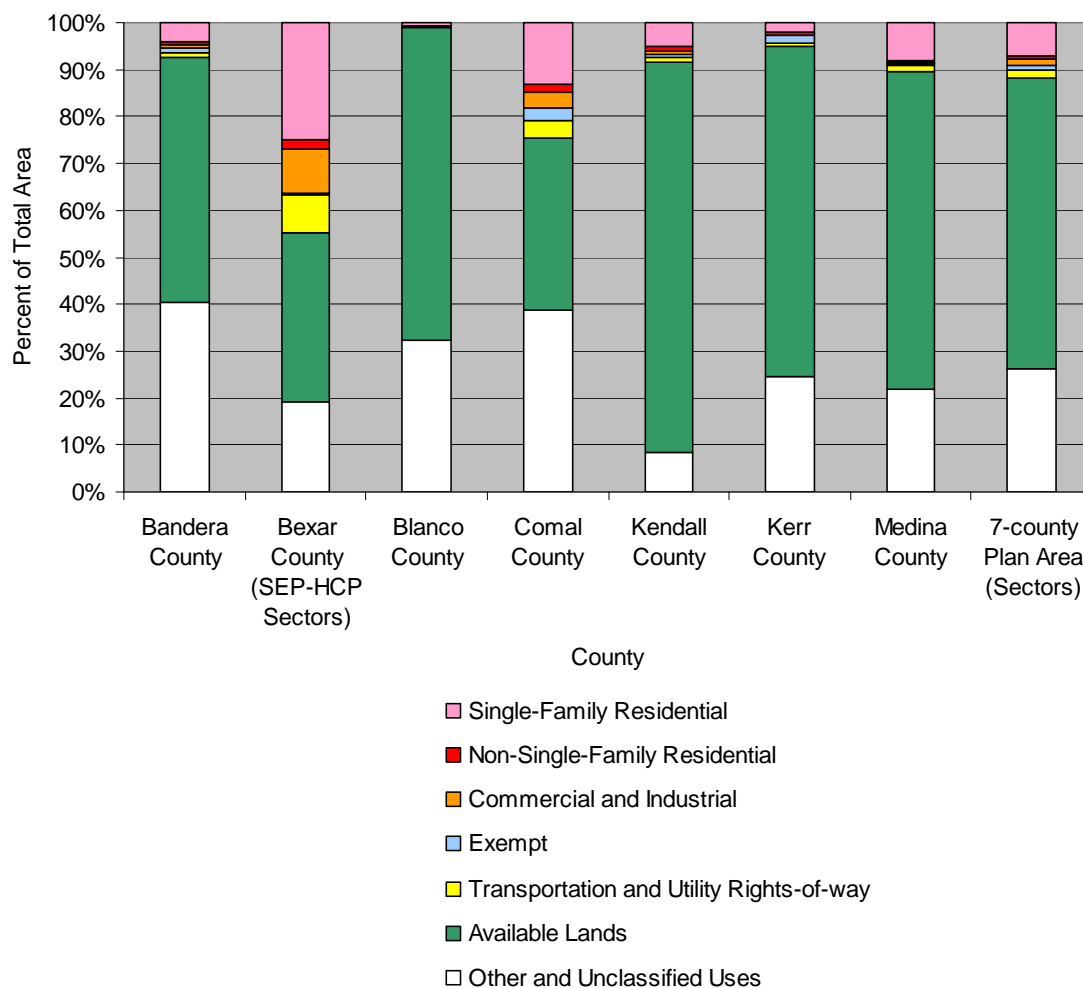
County	SEP-HCP Sector	Single-Family Res.	Non-Single-Family Res.	Comm. and Industrial	Exempt	Transp. and Utility ROW	Available Lands	Other and Unclass. Uses
Medina County		68,314	4,794	1,434	2,281	11,146	578,979	186,936
7-COUNTY PLAN AREA*		252,802	29,483	49,996	35,169	62,046	2,253,782	955,439

Source: WDA 2010.

Notes:

*Includes only portions of Bexar County and the Plan Area that are within a SEP-HCP sector.

Figure 2 shows the relative distribution of various general land uses within Plan Area counties in 2009, based on county appraisal district land use information.

FIGURE 2. Relative Distribution of Land Uses in the SEP-HCP Plan Area in 2009.

Land Development Trends and Influences

Single-family residential use represented approximately 59 percent of all developed land uses (i.e., the sum of residential, commercial/industrial, exempt, and right-of-way uses) in the Plan Area. Given the dominance of single-family residential land uses, the WDA land use projections described herein assume that the demand for new single-family housing is the primary driver of land use changes across the Plan Area. The demand for new housing is, in turn, largely a function of population changes (summarized in the [Population Estimates and Projections](#) resource assessment) and measures of household size (summarized in the [Housing Characteristics and Projections](#) resource assessment).

However, projecting land use changes must also include consideration of a variety of landscape, regulatory, and market factors that may influence the extent and character of new development. For instance, the amount of steep slopes and flood plains that are present in an area can reduce the amount of land available for urban development and complicate the expansion of utility service. Zoning, subdivision rules, and other development regulations can limit the density and placement of certain types of development. Finally, market factors, such as affordable housing and proximity to employment centers can also affect where new growth may occur. Indeed, the City of San Antonio's recently completed North Sector Plan (a component of the city's updated comprehensive master plan) recognizes that future residential development in the northern portion of Bexar County "...should consider the limiting effects of slope, vegetation, floodplain, and encroachment..." and that "...care should be expended to master plan these lands with the intent to focus housing density in areas where limitations of development are minimal or can be reasonably mitigated" (City of San Antonio 2010).

WDA incorporated these factors into the land use projections in two general ways: 1) by adjusting the target density for single-family residential development (expressed as acres per housing unit) and 2) by shifting some of the anticipated population growth for certain sectors to other areas with more capacity to absorb the growth.

Target densities for single-family residential development were used by WDA to model the overall amount of new development projected for a sector. When applied to the total amount of available undeveloped land in a sector, these target densities helped determine the capacity of a sector to absorb new growth. WDA first estimated target densities for single-family residential development based on the current densities indicated by county appraisal district data. WDA then modified these initial estimates to anticipate future conditions. Lower densities represented development that may be generally characterized as scattered clusters of suburban development in a largely rural landscape or by areas with relatively large-lot or "ranchette-style" residential development. Higher densities represent development generally characterized as broadly suburban or urban development, with smaller lots and less undeveloped open space.

WDA typically *decreased* the target density of single-family residential development for available undeveloped land in a sector if the sector generally:

- Included high amounts of steep slopes and/or floodplains – Steep slopes and floodplains are considered part of the general landscape, and such areas are included in the "available undeveloped" land use category. However, these landscape features typically make development more difficult, resulting in an overall lower density of development. On a sector-level, this lower density development may be typified by scattered clusters of suburban development or by more diffuse, larger lot development;
- Lacked community utility service, particularly sewer service – Areas not served by centralized utilities are generally more rural, with less development and larger lots. Development regulations frequently limit the density of development that may occur in areas supported by individual septic systems and wells. Market factors also influence the amount of development that occurs in areas without community utility service;

- Was outside of the anticipated path of growth from existing urban areas – A variety of market factors, such as transportation networks, employment centers, and housing prices affect where development will occur. Areas that lack easy access to employment centers and other community services are less likely to experience much growth; and
- Was likely to experience other significant market factors, such as housing affordability – Housing prices are, in part, related to the costs associated with development. Higher construction costs can result in higher home prices. The market for new high-priced homes is itself limited by the number of households that can afford to purchase them, which limits the demand for and overall density of housing of this type.

WDA typically *increased* the target density of single-family residential development for a sector if the sector generally:

- Included relatively few landscape challenges for new development;
- Was currently served by community utilities or was within the service area of an existing public utility purveyor;
- Was within the path of growth of an urban area, such as sectors with highway access to urban centers or other major employers; and
- Had a likelihood of having positive market factors, such as lower development costs that might accommodate an abundance of affordable housing or proximity to employment centers or community services.

Land Use Projections

WDA projected changes in land use for SEP-HCP sectors over the anticipated duration of the SEP-HCP (i.e., between 2010 and 2040), based on population projections, housing characteristics and trends, land use data, and other market factors. Changes in single-family residential development were projected using population projections, household sizes, and target densities and historic trends to predict the extent of new single-family development in a sector. As the dominant developed land use, single-family residential uses were also used as a benchmark for projecting new development for multi-family residential, commercial/industrial, and exempt uses.

WDA used county appraisal district land use data to estimate the acres of non-single-family residential, commercial/industrial, and exempt uses associated with every 100 single-family housing units in a sector. This ratio was applied to projections of future single-family housing to determine the extent of new non-single-family development for each sector. New development for transportation and utility rights-of-way was then estimated as a percentage of the total amount of new development projected for a sector.

WDA allowed the target residential densities and the ratios for other types of development to change over time for some sectors where the overall nature or character of a sector was expected to change from relatively rural to relatively urban. This feature of the land use projections allowed new development to occur more densely as an area became increasingly built out over time (if appropriate given other likely market and environmental conditions).

However, the amount of new development that can occur in a sector is ultimately limited by the amount of undeveloped land that may be available for future development. The WDA land use projections indicated that some sectors were likely to reach or exceed their capacity to accommodate new development before the demand for new housing and other associated developed land uses was satisfied. In these cases, WDA shifted the excess demand to adjacent areas with additional capacity for development so that the projected extent of new development for a sector did not exceed the amount of available undeveloped land. Some of this excess demand was eventually shifted outside of the region considered in the SEP-HCP sector analysis

to the southern or eastern parts of Bexar County or to the western parts of Guadalupe County, where potential impacts to the covered species are not a concern.

Table 3 and Figure 3 summarize the projected distribution of land uses within SEP-HCP sectors in 2040.

TABLE 3. Projected Distribution of General Land Uses in 2040 (acres).

County	SEP-HCP Sector	Single-Family Res.	Non-Single-Family Res.	Comm. and Industrial	Exempt	Transp. and Utility ROW	Available Lands	Other and Unclass. Uses
Bandera	ZCBC	9,986	377	2,349	4,277	2,687	72,996	44,241
Bandera	ZEBC1	7,607	180	409	250	1,287	26,988	24,068
Bandera	ZEBC2	1,373	1,145	544	177	497	555	2,939
Bandera	ZWBC	5,869	2,574	865	2,667	1,216	157,256	134,936
Bandera County		24,836	4,276	4,168	7,371	5,687	257,795	206,184
Bexar	FN	20,915	594	2,486	278	6,068	1,924	5,053
Bexar	FNE	16,020	509	7,143	129	5,463	3,409	4,345
Bexar	FNW	26,654	269	6,037	852	20,061	7,288	30,858
Bexar	FW	17,616	792	5,969	277	6,866	2,970	378
Bexar	NC	12,336	1,453	3,787	153	4,028	293	745
Bexar	NE	10,323	1,640	5,428	207	4,239	3,852	3,025
Bexar	NW	14,554	2,224	6,293	175	5,487	(101)	2,238
Bexar	W	5,597	393	3,502	53	2,007	4,037	908
Bexar County*		124,014	7,873	40,646	2,124	54,219	23,672	47,551
Blanco	ZNBC	1,374	170	237	356	523	212,934	103,570
Blanco	ZSBC	2,800	143	245	385	557	89,552	43,742
Blanco County		4,173	313	481	742	1,080	302,486	147,312
Comal	FNCC	17,495	2,265	2,950	1,926	2,643	26,387	26,950
Comal	ECC3	17,051	1,357	2,275	2,716	3,595	1,827	70,623
Comal	NCC3	6,627	574	1,412	221	1,404	14,051	10,612
Comal	SCC	19,136	467	5,802	2,010	4,248	16,684	1,489
Comal	WCC5	28,281	2,095	5,690	10,239	21,721	9,863	27,408
Comal	ZNB	5,879	763	2,512	1,492	2,235	133	1,599
Comal County		94,469	7,521	20,641	18,604	35,846	68,945	138,681
Kendall	ZEKC	15,515	2,234	2,211	2,454	3,419	52,069	2,749
Kendall	ZNKC	7,441	2,170	796	1,235	1,982	227,042	20,569
Kendall	ZWKC	7,871	1,724	1,228	2,512	1,386	56,069	11,611
Kendall County		30,827	6,127	4,236	6,202	6,787	335,180	34,929
Kerr	KCC	5,655	305	1,162	2,739	4,371	1,859	3,968
Kerr	KCNE	3,092	1,433	638	760	1,358	57,809	21,291
Kerr	KCSC	1,785	73	334	558	485	21,413	10,070
Kerr	KCSE	1,585	392	679	316	520	64,216	15,400
Kerr	KCW	8,663	1,765	134	8,374	2,044	341,918	121,673
Kerr County		20,781	3,968	2,947	12,747	8,778	487,215	172,401

TABLE 3. Projected Distribution of General Land Uses in 2040 (acres).

County	SEP-HCP Sector	Single-Family Res.	Non-Single-Family Res.	Comm. and Industrial	Exempt	Transp. and Utility ROW	Available Lands	Other and Unclass. Uses
Medina	ZDMC	4,280	937	443	704	1,233	35,852	12,502
Medina	ZEMC1	34,918	2,629	3,003	4,777	8,684	63,299	12,419
Medina	ZHMC	2,776	480	241	383	734	90,061	18,554
Medina	ZNMC	21,304	839	338	537	3,666	115,278	57,819
Medina	ZNMC	15,017	1,409	709	1,129	3,185	46,629	3,424
Medina	ZWMC	10,430	3,677	158	251	1,546	186,218	81,413
Medina County		88,725	9,970	4,891	7,781	19,049	537,337	186,131
7-COUNTY PLAN AREA*		387,824	40,049	78,009	55,571	131,445	2,012,629	933,190

Source: WDA 2010.

Notes:

*Includes only portions of Bexar County and the Plan Area that are within a SEP-HCP sector.

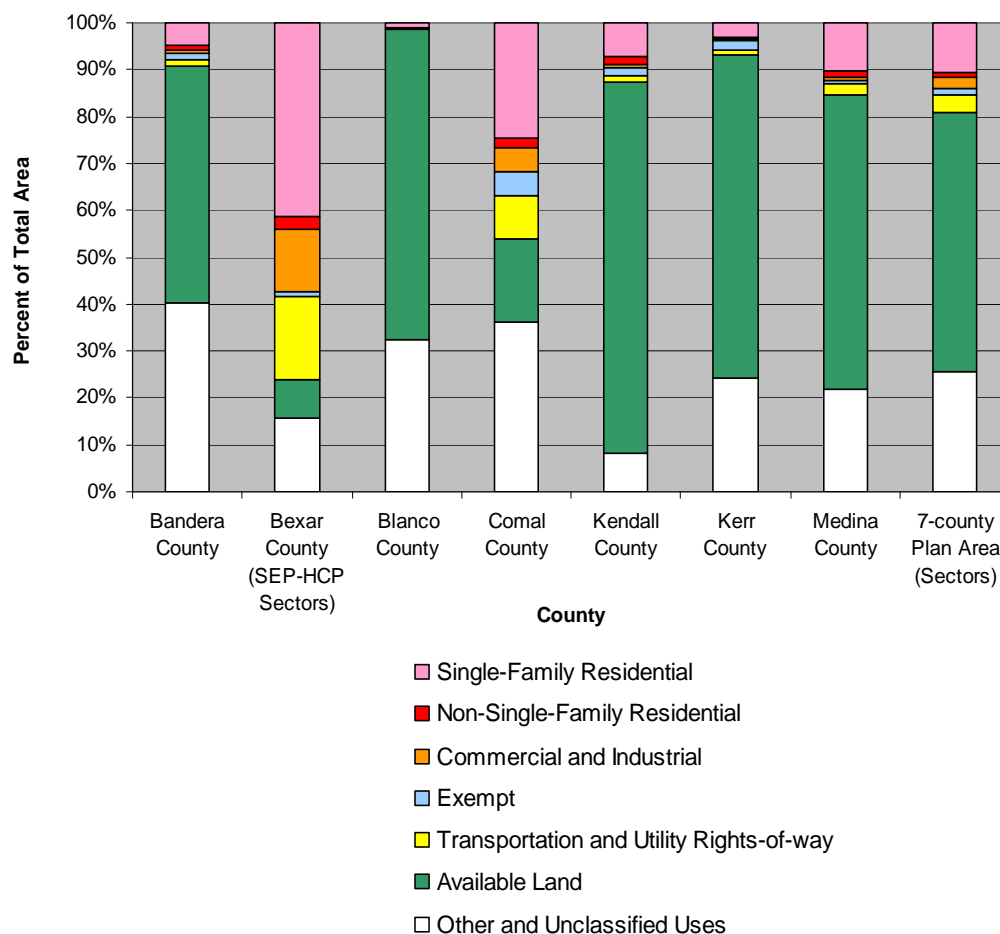
FIGURE 3. Projected Relative Distribution of Land Uses in the SEP-HCP Plan Area in 2040.

Table 4 summarizes the projected level of new development for the SEP-HCP Plan Area between 2010 and 2040, based on the WDA land use analysis. The WDA land use projections estimate that approximately 241,000 acres of available undeveloped land will be converted to developed land uses between 2010 and 2040, at an average pace of approximately 7,800 acres per year. The Bexar County sectors are projected to experience the most new development during this period (approximately 85,000 acres); although, adjacent Comal County and Medina County are also projected to experience a high degree of new development (approximately 73,000 acres and 42,000 acres, respectively).

TABLE 4. Projected Acres of New Development in the SEP-HCP Plan Area (2010 - 2040).

County	SEP-HCP Sector	Acres of New Developed Land Uses (2010 - 2040)	Average Annual Acre Increase in New Development (2010 - 2040)
Bandera	ZCBC	3,780	122
Bandera	ZEBC1	1,261	41
Bandera	ZEBC2	925	30
Bandera	ZWBC	2,988	96
Bandera County		8,955	289
Bexar	FN	14,920	481
Bexar	FNE	13,630	440
Bexar	FNW	18,357	592
Bexar	FW	22,445	724
Bexar	NC	3,875	125
Bexar	NE	3,443	111
Bexar	NW	6,907	223
Bexar	W	1,684	54
Bexar County*		85,260	2,750
Blanco	ZNBC	423	14
Blanco	ZSBC	971	31
Blanco County		1,395	45
Comal	FNCC	10,457	337
Comal	ECC3	10,769	347
Comal	NCC3	3,937	127
Comal	SCC	19,849	640
Comal	WCC5	23,888	771
Comal	ZNB	4,347	140
Comal County		73,247	2,363
Kendall	ZEKC	7,057	228
Kendall	ZNKC	5,881	190
Kendall	ZWKC	5,642	182
Kendall County		18,580	599
Kerr	KCC	4,751	153
Kerr	KCNE	3,704	119

TABLE 4. Projected Acres of New Development in the SEP-HCP Plan Area (2010 - 2040).

County	SEP-HCP Sector	Acres of New Developed Land Uses (2010 - 2040)	Average Annual Acre Increase in New Development (2010 - 2040)
Kerr	KCSC	649	21
Kerr	KCSE	918	30
Kerr	KCW	2,051	66
Kerr County		12,074	389
Medina	ZDMC	2,034	66
Medina	ZEMC1	25,505	823
Medina	ZHMC	922	30
Medina	ZNCMC	2,440	79
Medina	ZNMC	5,636	182
Medina	ZWMC	5,106	165
Medina County		41,642	1,343
7-COUNTY PLAN AREA*		241,152	7,779

Source: WDA 2010.

Notes:

*Includes only portions of Bexar County and the Plan Area that are within a SEP-HCP sector.

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