bae urban economics

Revised Draft Memorandum

To: Natalie Porter, El Dorado County

From: Matt Kowta, MCP, Managing Principal

Date: November 1, 2019

Re: El Dorado Countywide Housing and Employment Projections, 2018-2040

Introduction

The County of El Dorado commissioned BAE Urban Economics, Inc. (BAE) to prepare updated housing and employment growth projections to assist the County in the preparation of an updated Travel Demand Model for the Major Update to the Traffic Impact Mitigation (TIM) Fee Program and to inform the 2016 - 2020 Five-Year General Plan review and the 2021 - 2029 Housing Element Update. The updated growth projections cover the western slope of El Dorado County for the period 2018 to 2040.

Base Year Housing and Employment Estimates

It is necessary to establish a starting-point for the projections exercise. Currently, the projections cover only the western slope of the county (hereafter, "West Slope") comprising the area outside the Lake Tahoe Basin, which is under the jurisdiction of the Tahoe Regional Planning Agency. Two sources of estimates for housing and jobs in the West Slope specifically are the Sacramento Area Council of Governments (SACOG) and estimates compiled on behalf of El Dorado County (County) by Kimley-Horn Associates (KHA) based on the County's Geographic Information System (GIS) mapping data. Other sources only provide estimates for the unincorporated area as a whole (DOF) or for the county as a whole (Caltrans).

SACOG estimates for the 2016 baseline year, from the June 2019 Draft 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) land use forecast, that Traffic Analysis Zones (TAZ) covering the West Slope included 59,230 housing units and 39,360 jobs. The County estimates that the West Slope included 54,921 housing units and 37,319 jobs as of 2018. There is a discrepancy between the SACOG and County estimates. For purposes of this analysis, BAE has chosen to use the County estimates, as they are the most localized estimates available; whereas the SACOG estimates are derived from a set of regional estimates that cover the six-county SACOG region and thus may be less attuned to local conditions than County estimates.

The 2010 to 2018 estimates of West Slope housing units and jobs are summarized in Appendix A.

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Potential Residential Growth Rates

The Population/Housing section of Table 1 calculates potential residential growth rates for El Dorado County as a whole and for the West Slope, from the California State Department of Finance (DOF), SACOG, and Caltrans. This section also presents two additional growth rate scenarios which are based on trending historic growth rates calculated from estimates by the DOF for the 2000 to 2018 period and by the County for the 2010 to 2018 period through 2040. It should be noted that the DOF growth rates are for population; however, for the purposes of this analysis, the population growth rates are used as a proxy for potential housing unit growth rates. The Caltrans growth rates are for households, which are also used as a proxy for potential housing unit growth. In these cases, the implicit assumption is that average household sizes and housing unit vacancy rates will not vary substantially from current levels. The 2010 to 2018 DOF growth trend is for the whole county, less the cities of South Lake Tahoe and Placerville. The implicit assumption is that the growth of this slightly larger area, which includes the Tahoe Basin portion of the county, is indicative of the potential West Slope growth rate.

As shown in the Population/Housing section of Table 1, the resulting 2018 to 2040 growth rates imply a range of residential growth for the county. While four out of the five projections yield average annual growth rates for the 2018 to 2040 period ranging between, 0.52 and 0.93 percent, the growth based on trending the 2010 to 2018 DOF housing unit estimates out to 2040 yields an average annual growth rate of 1.56 percent. This growth rate is an outlier and is the only figure among the group directly influenced by growth rates leading up to the 2008 housing crash, BAE believes the DOF growth rate should be discounted for the purposes of this analysis.

Potential Employment Growth Rates

The Employment section of Table 1 presents employment growth rates from SACOG and Caltrans. The Employment section of Table 1 also includes a third growth rate that is based on trending Caltrans' 2000 to 2018 employment growth estimates out through 2040, and a fourth growth rate that is based on trending the County's estimated 2010 to 2018 job growth out through 2040. The two Caltrans-derived growth rates are based on countywide jobs, with the implicit assumption being that the countywide growth rates are indicative of the West Slope growth rates.

As with the residential projections, the 2018 to 2040 employment growth rate based on the 2000 to 2018 growth trend (Caltrans) is the anomaly among the group, yielding the only average annual growth rate higher than one percent, while the other employment growth projections range between 0.45 and 0.84 percent per year. BAE also advises that the Caltrans growth rate based on the 2000 to 2018 growth should be discounted as an outlier among the other employment growth rates.

Housing Unit Projections 2018 to 2040

The Housing Units section of Table 2 shows housing unit projections for the West Slope from 2018 to 2040, using the County's 2018 estimate of 54,921 housing units. Then, the Housing Units section of Table 2 applies residential growth rates from Table 1 to the base year figures to project housing unit growth for 2020, 2025, 2030, 2035, and 2040, excluding the outlier residential growth rate from Table 1 derived from the DOF 2000 to 2018 trend. As shown in the Housing Units section of Table 2, the resulting projections range from 61,598 housing units based on SACOG's projected growth rate through 2040 to 67,253 housing units in 2040 (based on Caltrans projected growth rate through 2040). For planning purposes, BAE suggests the County consider a growth projection reflecting the average of the residential projections shown in the Housing Units section of Table 2. This would yield 64,095 total residential units in the West Slope area by 2040, representing a 0.70 percent annual average residential growth rate, which is slightly higher than the growth rate derived from the County's 2010 through 2018 growth estimates and the SACOG 2040 projections, but less drastic than those suggested by the DOF and Caltrans.

Employment Projections 2018 to 2040

The Employment section of Table 2 shows a series of employment projections for the 2018 to 2040 period, drawing from the potential employment growth rates from the Jobs section of Table 1 and applying them to the County's estimated 2018 West Slope base year jobs estimate. From the County's estimated 2018 jobs base of 37,319, the different employment projections yield 2040 job totals ranging from 41,220 jobs, using the 2010 to 2018 trend from the County estimates, to 44,820 jobs, using the SACOG employment growth rate. Again, this series of projections excludes the potential growth rate from Table 1 which was derived from estimated 2000 to 2018 Caltrans employment growth estimates.

As with the residential growth projections, BAE suggests the County use an average of the projections shown in the Employment section of Table 2 to project West Slope job growth for the 2018 to 2040 period, which yields an average annual employment growth rate of 0.67 percent and a 2040 job total of 43,252.

Summary

Based on the data and methodology described above BAE recommends the County use the following West Slope housing unit and employment growth assumptions for planning purposes:

	2018	2040	Estimated Growth	Avg. Annual 2018-2040 Growth Rate	Avg. Annual 2000-2018 Growth
					Rate ¹
Housing	54,921	64,095	9,174	0.70%	0.55%
Units			housing units		
Jobs	37,319	43,252	5,933 jobs	0.67%	0.45%

These figures provide the County with growth assumptions that fall within the middle range of the growth projections available from various sources (DOF, Caltrans, SACOG) and the County's own GIS data available for this study, after discounting outlier projections based on 2000 to 2018 DOF residential growth rates and 2000 to 2018 Caltrans employment growth rates. Further, the recommended housing unit and employment growth rates suggest the County will produce new housing at a rate that will correspond with the rate of new employment growth, meaning that the growth pattern would be balanced and the County's jobs/housing balance would not deteriorate over time.

Next Steps

These Draft West Slope housing (units) and employment (jobs) growth projections will be reviewed and discussed with the El Dorado County Board of Supervisors (Board). Based on input from the Board and direction from County staff, BAE will make any necessary refinements and finalize the West Slope growth projections. BAE will then analyze the pattern of growth within the West Slope and allocate the 2018 to 2040 housing unit and jobs growth among the four Community Regions (El Dorado Hills, Cameron Park, Diamond Springs/El Dorado, and Shingle Springs) and the balance of the West Slope area. Lastly, BAE will review and discuss the refined projections and growth allocations with the Planning Commission and the Board to solicit input before finalizing the projections for the County's future land use and transportation planning purposes.

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¹ Based on 2000 to 2018 growth rates based on County GIS data. See Table 1.

Table 1: Alternative Growth Rates Through 2040, Unadjusted 2018 Base Year

Population/Housing Units/Households	2010	2016	2018	2020	2025	2030	2035	2040	2018 to 2040 Avg. Annual Growth Rate	
California Department of Finance Projection to 2040 (Countywide Population) (a)	181,014	184,335	188,993	191,581	199,521	208,457	217,619	225,419	0.80%	
SACOG Projection to 2040 (West Slope Housing Units, Less Placerville) (b)		59,230	59,951	60,682	62,547	64,469	66,450	67,250	0.52%	
Caltrans Projection to 2040 (Countywide Households) (c)	70,221	69,864	70,497	71,531	75,140	79,128	82,965	86,327	0.93%	
2000 to 2018 Dept. of Finance Growth Trended to 2040 (Countywide Housing Units, Less Placerville and South Lake Tahoe) (d	68,637	75,313	77,680	80,121	86,565	93,528	101,050	109,177	1.56%	
2010 to 2018 County Growth Trended to 2040 (West Slope Housing Units, Less Placerville) (e)	52,548	53,920	54,921	55,531	57,085	58,683	60,325	62,014	0.55%	
Employment										
SACOG Projection to 2040 (West Slope Jobs, Less Placerville)		39,360	40,059	40,770	42,603	44,518	46,520	48,110	0.84%	
Caltrans Projection to 2040 (Countywide Jobs) (c)	47,550	53,970	57,996	57,996	60,783	63,697	65,975	67,939	0.72%	
2000 to 2018 Caltrans Growth Trended to 2040 (Countywide Jobs)	47,550	51,508	52,900	54,328	58,072	62,073	66,350	70,922	1.34%	
2010 to 2018 County Growth Trended to 2040 (West Slope Jobs, Less Placerville) (e)	35,994	37,278	37,319	37,658	38,518	39,399	40,299	41,220	0.45%	

Notes

- (a) CA Department of Finance, Demographic Research Unit, file P2.
- (b) SACOG Draft 2020 Land Use Projections, Preferred MTP/SCS Scenario
- (c) Caltrans
- (d) Based on CA Dept. of Finance 2000 and 2018 countywide population estimates
- (e) Based on West Slope growth as compiled by Kimley-Horn for El Dorado County.

Sources: California Department of Finance, SACOG, Caltrans, El Dorado County, Kimley-Horn, BAE, 2019

Table 2: Projected Growth Countywide Housing and Job Growth Through 2040

HOUSING UNITS	2018 to 2040 Avg. Annual Growth Rate	2018	2020	2025	2030	2035	2040
California Department of Finance Population Growth Rate Projection to 2040	0.80% (a)	54,921 (c)	55,808	58,089	60,463	62,934	65,506
SACOG Housing Unit Growth Rate Projection to 2040	0.52% (a)	54,921 (c)	55,498	56,966	58,473	60,019	61,607
Caltrans Household Growth Rate Projection to 2040	0.93% (a)	54,921 (c)	55,942	58,577	61,337	64,227	67,253
2010 to 2018 County Growth Trended to 2040 (West Slope Housing Units, Less Placerville)	0.55% (a)	54,921 (c)	55,531	57,085	58,683	60,325	62,014
Average Projection (d)	0.70% (b)	54,921	55,695	57,679	59,739	61,877	64,095
EMPLOYMENT							
SACOG Employment Growth Rate Projection to 2040 (West Slope Jobs, Less Placerville)	0.84% (a)	37,319 (c)	37,946	39,558	41,240	42,992	44,820
Caltrans Employment Growth Rate Projection to 2040 (Countywide Employment)	0.72% (a)	37,319 (c)	37,860	39,246	40,683	42,173	43,717
2010 to 2018 County Growth Trended to 2040 (West Slope Jobs, Less Placerville)	0.45% (a)	37,319 (c)	37,658	38,518	39,399	40,299	41,220
Average Projection (d)	0.67% (b)	37,319	37,821	39,108	40,440	41,821	43,252

Notes:

Sources: California Department of Finance, SACOG, Caltrans, El Dorado County, Kimley-Horn, BAE, 2019.

⁽a) From Table 1.

⁽b) Growth rate calculated from average projected growth for 2018 to 2040.

⁽c) 2018 base year data for all projection scenarios is County 2018 estimate for West Slope less Placerville, as compiled by Kimley-Horn.

⁽d) Average figures for 2020 through 2040 are the numberic average for a given year for the different projection scenarios.

Appendix A: El Dorado County West Slope Housing Units and Jobs, 2010 to 2018

El Dorado County (West Slope, Less City of Placerville)									
Year	Single Family	Multifamily	Multifamily						
	(Homes)	(Duplexes)	(Apartments)						
2010	46,579	842	5,127	15,458	20,536				
2016	47,784	965	5,171	15,532	21,746				
2018	48,778	972	5,171	15,532	21,787				
	El Dorado Hills - Community Region								
Year	Single Family	Multifamily	Multifamily	Retail (Jobs)	Non-Retail (Jobs)				
	(Homes)	(Duplexes)	(Apartments)						
2010	12,030	31	1,104	4,065	8,994				
2016	13,152	137	1,104	4,083	9,018				
2018	13,950	139	1,104	4,083	9,030				
	Cameron Park - Community Region								
Year	Single Family	Multifamily	Multifamily	Retail (Jobs)	Non-Retail (Jobs)				
	(Homes)	(Duplexes)	(Apartments)						
2010	6,059	108	1,399	1,891	1,467				
2016	6,091	108	1,399	1,931	1,488				
2018	6,120	108	1,399	1,931	1,488				
	Di	Diamond Springs/El Dorado - Community Region							
Year	Single Family	Multifamily	Multifamily	Retail (Jobs)	Non-Retail (Jobs)				
	(Homes)	(Duplexes)	(Apartments)						
2010	2,734	182	1,047	2,766	3,928				
2015	2,739	182	1,047	2,766	4,018				
2016	2,740	182	1,047	2,766	4,036				
2018	2,746	182	1,047	2,766	4,053				
		Shingle Springs	- Community Region						
Year	Single Family	Multifamily	Multifamily	Retail (Jobs)	Non-Retail (Jobs)				
	(Homes)	(Duplexes)	(Apartments)						
2010	725	23	168	1,474	1,124				
2015	727	23	208	1,490	1,138				
2016	727	25	212	1,490	1,139				
2018	728	26	212	1,490	1,139				
	Place	erville - Community	Region Less City of Pla	cerville					
Year	Single Family	Multifamily	Multifamily	Retail (Jobs)	Non-Retail (Jobs)				
	(Homes)	(Duplexes)	(Apartments)						
2010	1,453	158	472	1,092	867				
2015	n.a.	n.a.	n.a.	n.a.	n.a.				
2016	1,416	158	472	1,092	867				
2018	1,462	158	472	1,092	867				
Balance of West Slope (Non-Community Regions, Rural Centers, Rural Regions)									
Year	Single Family	Multifamily	Multifamily	Retail (Jobs)	Non-Retail (Jobs)				
	(Homes)	(Duplexes)	(Apartments)						
2010	23,578	340	937	5,262	4,156				
2015									
2016	23,658	355	937	4,170	5,198				
2018	23,772	359	937	4,170	5,210				

Sources: El Dorado County, Kimley-Horn, 2019; BAE, 2019.