

## LATE DISTRIBUTION 3-11-14

Item  
14-0245

March 9, 2014

Honorable Norma Santiago  
Chairman of the Board of Supervisors  
El Dorado County, Ca

RE: EDC traffic model and impact fees

A traffic model requires a base year several years back so that it can forecast to the conditions of now and thus test the model. Our base year was 2010 and now we have good datasets to forecast for 2011, 2012, and 2013 to calibrate the model. If the model calibrates for backcasts and forecasts then it can be validated to reflect reality (at a certain time).

So, we have some results from the model forecast (attached) and they indicate the number of SFD category permits thru 2015 will be 3,135 (page 8 of 23, Table 3). We know from the building department the actual number of permits to current 2014. There are two years left to complete the model's forecast so we know subtraction will tell us how many permits must be pulled to meet the model's prediction. It is important to use our judgment coupled with the statistics to evaluate the last two years. We have 480 SFD permits thru 2012 from the census. That's 124, 143, and 223 actual permits for 2010 – 2012. **If we assume 636 permits for 2013** our new total to 2014 is 1,106 permits'. This leaves us needing  $3,135 - 1,106 = 2029$  permits in 2 years. Is this likely? We wish the 2013 actual permit history to be included in the validation process.

We should hit 3,135 if our model is correct. It becomes a statistical problem forecasting 2014 and 2015 with the model's elevated projections. These projections carry forward in time driving up the CIP and impact fees.

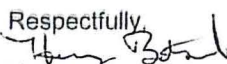
A yearly review of the program is required and these projections become relevant very quickly as the projections fail. We have enough data now to challenge the model's forecast.

We can look at other variables to if they are responding differently to the permit trend line – say jobs and school populations (big trip generators) to see if permit forecasts are in accord.

School CBED'S show student population levels declined below 2001 population levels. Model employment projections are showing more job growth by 2015 than we have had in the entire time since 2001. We have 5 consecutive years of job losses (-5,700) and we forecast a turnaround in 2 years? We have also forecasted inflated trip counts from these skewed data. We use old studies and skew impact higher through the use of bad data.

Attached are support documents for jobs, school populations in EDC, and parcel inventory data. The model can easily be changed to reflect accurate data and cure the model assumptions. Current data from 1013 needs to be released (building permits, etc.) and included in the model to accomplish this. Our choices going forward are all affected by the forecast.

What if our permits went down to 150 for 2013? Or up to 2,400? We would be under collecting fees if this 2,400 figure were used. With public support for the model at question isn't it prudent to repair the model and use up to date and valid information.

Respectfully,  
  
Henry Batsel

Link to FHA Model Validation Guidelines

<https://connect.ncdot.gov/projects/planning/tpb%20training%20presentations/fhwa%20model%20validation%20handbook.pdf>

August 2013 - NOTE CURRENT DATA SOURCE

**Table 1. Jobs and Employed Residents by County, 2000-2011**

County	2001	2003	2005	2007	2009	2011	2012	Changes			
								'01 to '07	'07 to '11	'11 to '12	
<b>Jobs</b>											
El Dorado	45,234	47,745	51,079	53,303	49,040	47,517	n/a	+8,069	-5,786		← TREND NET 10 YR +2300 JOBS
Placer	119,531	129,289	135,945	139,928	126,151	128,189	n/a	+20,397	-11,739		
Sacramento	574,454	583,581	608,602	623,764	583,320	558,640	n/a	+49,310	-65,124		
Sutter	25,458	26,591	26,894	28,943	27,297	26,765	n/a	+3,485	-2,178		
Yolo	93,838	95,300	99,853	103,269	97,937	94,970	n/a	+9,431	-8,299		
Yuba	17,480	16,471	17,515	17,667	15,868	14,973	n/a	+187	-2,694		
<b>Total</b>	<b>875,995</b>	<b>898,977</b>	<b>939,888</b>	<b>966,874</b>	<b>899,613</b>	<b>871,054</b>	<b>n/a</b>	<b>+90,879</b>	<b>-95,820</b>		
<b>Employed Residents<sup>†</sup></b>								11 YRS = +600 EMPLOYED RES 11 TO '12			
El Dorado	80,500	83,200	86,800	85,800	81,600	79,500	81,100	+5,300	-6,300	+1,600	
Placer	133,500	146,000	157,400	164,500	161,100	158,800	162,000	+31,000	-5,700	+3,200	
Sacramento	596,400	618,300	632,500	640,000	604,900	596,500	608,400	+43,600	-43,500	+11,900	
Sutter	34,700	35,300	36,200	37,100	34,900	34,700	35,300	+2,400	-2,400	+600	
Yolo	83,800	86,100	87,400	92,100	87,700	85,500	87,200	+8,300	-6,600	+1,700	
Yuba	22,700	22,700	23,400	24,800	23,500	22,700	23,100	+2,100	-2,100	+400	
<b>Total</b>	<b>951,600</b>	<b>991,600</b>	<b>1,023,700</b>	<b>1,044,300</b>	<b>993,700</b>	<b>977,700</b>	<b>997,100</b>	<b>+92,700</b>	<b>-66,600</b>	<b>+19,400</b>	

Source: SACOG, August 2013, based on data from California Employment Development Department.

<sup>†</sup> These estimates of jobs are based on unemployment insurance records submitted by employers, and omits some types of employment sites, such as home-based businesses. Location is based on the recorded location of the employer.

<sup>‡</sup> These estimates of employed workers area based on surveys of residents in each county, and their employment status in the survey year. Location is based on the residence location of the respondent



**El Dorado County School Districts  
CBEDS Retrospect  
October 3, 2012**

DISTRICT	2007	% of change from PY	2008	% of change from PY	2009	% of change from PY	2010	% of change from PY	2011	% of change from PY	2012	% of change from PY	enrollment change from PY	2001
Black Oak Mine	1,847	-3.9%	1,743	-5.6%	1,650	-5.3%	1,636	-0.8%	1,570	-4.0%	2001 1,420	-9.6%		2012
Buckeye Union	4,794	1.0%	4,792	0.0%	4,744	-1.0%	4,721	-0.5%	4,636	-1.8%	2001 4,733	2.1%	97	
CA Montessori Project	307	0.7%	308	0.3%	331	7.5%	352	6.3%	361	2.6%	2001 + 366	4.8% 2001 1.4%	5	
Camino Union	450	0.9%	438	-2.7%	426	-2.7%	449	5.4%	473	5.3%	2001 513	8.5%	40	592
El Dorado HS	7,284	-0.8%	7,259	-0.3%	7,061	-2.7%	6,966	-1.3%	6,908	-0.8%	2003 6,873	-0.5%		6612
Gold Oak	692	-0.4%	633	-8.5%	589	-7.0%	550	-6.6%	493	-10.4%	2001 445	-9.7%		756
Gold Trail	552	0.5%	552	0.0%	542	-1.8%	541	-0.2%	543	0.4%	2001 568	4.6%	25	645
Indian Diggings	31	-8.8%	26	-16.1%	23	-11.5%	18	-21.7%	22	22.2%	2001 18	-18.2%		38
Lake Tahoe	4,182	-2.5%	4,077	-2.5%	3,965	-2.7%	3,878	-2.2%	3,856	-0.6%	2001 3,793	-1.6%		5489
Latrobe	197	-2.5%	181	-8.1%	178	-1.7%	171	-3.9%	170	-0.6%	2001 150	-11.8%		142
Mother Lode	1,450	-1.8%	1,386	-4.4%	1,356	-2.2%	1,225	-9.7%	1,196	-2.4%	2001 1,141	-4.6%		1663
Pioneer	440	-2.2%	428	-2.7%	403	-5.8%	397	-1.5%	342	-13.9%	2001 312	-8.8%		599
Placerville	1,140	-3.5%	1,169	2.5%	1,211	3.6%	1,258	3.9%	1,278	1.6%	2001 1,268	-0.8%		1345
Pollock Pines	768	-1.5%	745	-3.0%	720	-3.4%	699	-2.9%	704	0.7%	2001 694	-1.4%		935
Rescue	4,089	3.9%	4,108	0.5%	4,116	0.2%	4,065	-1.2%	3,994	-1.7%	2006 3,899	-2.4%		3346
Silver Fork	19	5.6%	18	-5.3%	16	-11.1%	12	-25.0%	14	16.7%	2001 10	-28.6%		17
EDCOE	1,078	3.0%	1,041	-3.4%	1,077	3.5%	1,122	4.2%	1,079	-3.8%	2006 1,029	-4.6%		773
<b>TOTAL</b>	<b>29,320</b>	<b>-0.4%</b>	<b>28,904</b>	<b>-1.4%</b>	<b>28,408</b>	<b>-1.2%</b>	<b>28,060</b>	<b>-1.2%</b>	<b>27,639</b>	<b>-1.5%</b>	<b>27,232</b>	<b>-1.5%</b>		

Change from PY

DOWN / RETRO | UP POP.

up Montessori  
3 below 2006  
1 below 2003  
12 below 2001

total student population  
2001 - 29,104  
2012 - 27,232

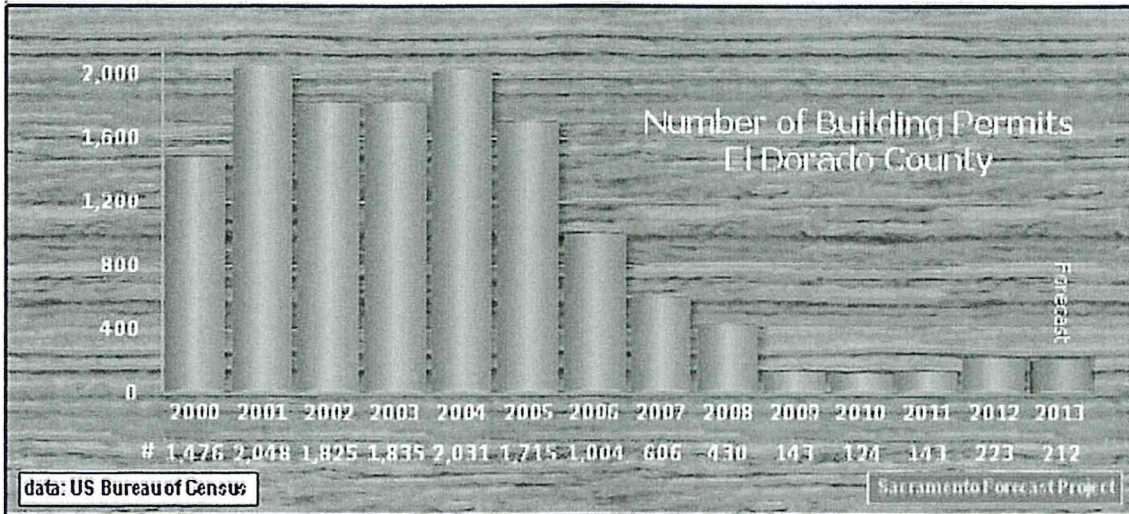
DOWN FROM 2001 total 17 DOWN POP.

**El Dorado County  
School Districts  
CBEDS Retrospect  
October 2008**

DISTRICT	% of change from PY	2001	% of change from PY	2002	% of change from PY	2003	% of change from PY	2004	% of change from PY	2005	% of change from PY	2006	% of change from PY	2007	% of change from PY	2008	% of change from PY	enrollment change from PY
Black Oak Mine	1.1%	2,012	0.5%	2,022	0.5%	2,016	-0.3%	1,943	-3.6%	1,979	-3.6%	1,922	-2.9%	1,847	-3.9%	1,743	-5.6%	(104)
Buckeye Union	3.6%	4,100	3.4%	4,213	2.8%	4,279	1.6%	4,527	5.8%	4,623	5.8%	4,748	2.7%	4,794	1.0%	4,792	0.0%	(2)
CA Montessori Project												305	0.0%	307	0.0%	308	0.3%	1
Camino Union	3.8%	592	3.0%	555	-6.3%	521	-6.1%	507	-2.7%	492	-2.7%	446	-9.3%	450	0.9%	438	-2.7%	(12)
El Dorado HS	0.7%	6,612	2.9%	6,858	3.7%	6,981	1.8%	7,248	3.8%	7,411	3.8%	7,344	-0.9%	7,284	-0.8%	7,259	-0.3%	(25)
Gold Oak	-6.2%	756	-0.4%	756	0.0%	727	-3.8%	747	2.8%	716	2.8%	695	-2.9%	692	-0.4%	633	-8.5%	(59)
Gold Trail	0.9%	645	-2.3%	645	0.0%	610	-5.4%	553	-9.3%	543	-9.3%	549	1.1%	552	0.5%	552	0.0%	-
Indian Diggings	44.0%	38	5.6%	36	-5.3%	40	11.1%	40	0.0%	39	0.0%	34	-12.8%	31	-8.8%	26	-16.1%	(5)
Lake Tahoe	-1.2%	5,489	-3.9%	5,238	-4.6%	5,094	-2.7%	4,771	-6.3%	4,520	-6.3%	4,291	-5.1%	4,182	-2.5%	4,077	-2.5%	(105)
Latrobe	-2.8%	192	9.7%	203	5.7%	196	-3.4%	215	9.7%	210	9.7%	202	-3.8%	197	-2.5%	181	-8.1%	(16)
Mother Lode	-3.0%	1,663	1.5%	1,611	-3.1%	1,629	1.1%	1,574	-3.4%	1,550	-3.4%	1,477	-4.7%	1,450	-1.8%	1,386	-4.4%	(64)
Pioneer	4.0%	589	-0.3%	556	-5.6%	554	-0.4%	539	-2.7%	492	-2.7%	450	-8.5%	440	-2.2%	428	-2.7%	(12)
Placerville	-0.2%	1,345	2.9%	1,304	-3.0%	1,290	-1.1%	1,294	0.3%	1,210	0.3%	1,181	-2.4%	1,140	-3.5%	1,169	2.5%	29
Pollock Pines	-0.5%	935	-6.6%	851	-9.0%	804	-5.5%	799	-0.6%	797	-0.6%	780	-2.1%	768	-1.5%	745	-3.0%	(23)
Rescue	5.1%	3,346	4.0%	3,529	5.5%	3,624	2.7%	3,695	2.0%	3,811	2.0%	3,936	3.3%	4,089	3.9%	4,108	0.5%	19
Silver Fork	-41.2%	17	70.0%	17	0.0%	10	-41.2%	17	70.0%	16	70.0%	18	12.5%	19	5.6%	18	-5.3%	(1)
EDCOE	-5.4%	773	7.8%	754	-2.5%	708	-6.1%	899	27.0%	927	27.0%	1,047	12.9%	1,078	3.0%	1,041	-3.4%	(37)
<b>TOTAL</b>	<b>0.7%</b>	<b>29,104</b>	<b>1.1%</b>	<b>29,148</b>	<b>0.2%</b>	<b>29,083</b>	<b>-0.2%</b>	<b>29,368</b>	<b>1.0%</b>	<b>29,336</b>	<b>-0.1%</b>	<b>29,425</b>	<b>0.3%</b>	<b>29,320</b>	<b>-0.4%</b>	<b>28,904</b>	<b>-1.4%</b>	<b>(416)</b>

← 2001 total student population

## Sacramento Forecast Project



### Building Permits

Residential Building Permits (total units) in El Dorado County have declined 93.9% from the high of 2,031 residential permits in 2004, down to the recent low of 124 permits issued in 2010. The result for 2011 was for a 15.3% **increase** to 143 permits and 2012 did even better, adding 80 permits (a 55.9% **increase**) for a total of 223 permits issued. The forecast for 2013 *using actual data through December, 2012*, is for a 5.1% (11 permit) decrease to 212 permits issued.

<http://sacramentoforecastproject.org/>

*Arthur N. Jensen, Emeritus Professor of Marketing*  
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**Table 3: Projected Residential Growth, West Slope of El Dorado County, 2010-2035**

	2010	2015	2020	2025	2030	2035
<b>Total Housing Units</b>	59,668	62,803	66,102	69,575	73,230	77,077
<b>New Housing Units Each Period</b>						
	<b>Incremental Growth from Prior 5 Years</b>					
<b>Market Area (a)</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>Total</b>
#1 - El Dorado Hills	861	906	954	1,004	1,057	4,781
Single-family Units	772	812	855	973	1,057	4,469
Multifamily Units	89	94	99	31	0	312
#2 - Cameron Park/Shingle Springs	755	795	837	881	927	4,195
Single-family Units	677	713	750	717	702	3,560
Multifamily Units	78	82	86	164	225	635
#3 - Diamond Springs	164	172	181	191	201	909
Single-family Units	147	155	163	171	180	815
Multifamily Units	17	18	19	20	21	94
#4 - Unincorporated Placerville Area	82	86	90	95	100	454
Single-family Units	73	77	81	85	70	387
Multifamily Units	8	9	9	10	30	67
#5 - Coloma/Gold Hill	166	175	184	193	204	921
Single-family Units	166	175	184	193	204	921
Multifamily Units	0	0	0	0	0	0
#6 - Pollock Pines	203	214	225	237	250	1,129
Single-family Units	182	172	178	188	218	938
Multifamily Units	21	42	47	50	32	191
#7 - Pleasant Valley	208	219	230	243	255	1,155
Single-family Units	186	216	230	243	255	1,131
Multifamily Units	21	3	0	0	0	24
#8 - Latrobe	17	18	19	20	21	94
Single-family Units	17	18	19	20	21	94
Multifamily Units	0	0	0	0	0	0
#9 - Somerset	125	131	138	145	153	692
Single-family Units	125	131	138	145	153	692
Multifamily Units	0	0	0	0	0	0
#10 - Cool/Pilot Hill	166	175	184	194	204	924
Single-family Units	166	175	184	194	204	924
Multifamily Units	0	0	0	0	0	0
#11 - Georgetown/Garden Valley	245	258	271	286	301	1,361
Single-family Units	245	258	271	286	301	1,361
Multifamily Units	0	0	0	0	0	0
#12 - Tahoe Basin	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Single-family Units	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Multifamily Units	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
#13 - American River	91	95	100	106	111	503
Single-family Units	91	95	100	106	111	503
Multifamily Units	0	0	0	0	0	0
#14 - Mosquito	52	55	58	61	64	291
Single-family Units	52	55	58	61	64	291
Multifamily Units	0	0	0	0	0	0
<b>Total</b>	<b>3,135</b>	<b>3,299</b>	<b>3,473</b>	<b>3,655</b>	<b>3,847</b>	<b>17,409</b>

**Notes:**

Figures in columns may not sum to totals due to rounding.

For the geographic boundaries of the various Market Areas, please refer to Figure 1 on page 9.

(a) Projected overall growth is allocated to Market Areas based on each Market Area's proportionate share of West Slope, less City of Placerville growth from 2000 to 2011. See Appendix A.

Sources: El Dorado County, BAE, 2013.

Projected  
2015

Conflict with County permits actual headline

7 quarters remaining  
thru 2005 - can assume  
1100 permits for 2 yrs  
(2014, 2015) to be a

14-0245 | 8 of 23  
LEGITIMATE FORECAST.  
Avg. last 7 yrs = 260

**Appendix B: Maximum Residential Capacity on Currently Vacant Parcels**

Market Area	Outstanding SFR Capacity	Outstanding Multifamily Capacity	Total Outstanding Residential Capacity
#1 - El Dorado Hills	8,033	312	8,345
#2 - Cameron Park/ Shingle Springs	4,860	2,201	6,861
#3 - Diamond Springs	3,870	2,401	6,271
#4 - Unincorporated Placerville Area	841	83	1,024
#5 - Coloma/Gold Hill	925	0	925
#8 - Pollock Pines	1,187	191	1,388
#7 - Pleasant Valley	1,238	24	1,260
#8 - Lathrop	1,275	0	1,275
#9 - Somerset	853	0	853
#10 - Cool/Pilot Hill	2,345	0	2,345
#11 - Georgetown/Garden Valley	2,748	0	2,748
#12 - Tahoe Basin	n.a.	n.a.	n.a.
#13 - American River	1,188	0	1,188
#14 - Mosquito	318	0	318
<b>Total</b>	<b>29,599</b>	<b>5,212</b>	<b>34,811</b>

C.P. Diamond Springs

Differ from APPROX

1,106 Actual Count  
 (Staff & MEERS Y<sup>11</sup> group)  
 FIGURES

Inventory Constraints  
 Removed!  
 Skews  
 Data

**Notes and exclusions:**

Figures in columns may not sum to totals due to rounding.

For the geographic boundaries of the various Market Areas, please refer to Figure 1 on page 9.

1. Excludes Mixed Use residential capacity on commercial lands.
2. Rural Regions analyses is based on vacant residential lands capacities only, additional underutilized capacity exists but is not analyzed.
3. Community Regions analyses is based on draft land use capacity dated 12/1/12, minor adjustments may be expected prior to completion.
4. Camino/Pollock Pines Community Region analysis is based on underlying land uses only, with no parcel specific analyses (performed for Market Area 6).
5. Vacant Rural Region analyses is based on underlying residential land uses on vacant lands without parcel specific constraints analysis. It does not include vacant agricultural lands.
6. Underdeveloped Rural Region analyses is based on underlying land uses without parcel specific constraints analysis and includes partially developed residential lands and vacant agricultural lands.

Source: Kinley-Horn and Associates, Inc., 2012.

# LUPPU/2004 GP Proposed New Homes (Not yet approved)

	LUPPU/GP "Achievable" Units <sup>1</sup>		Currently Approved Lots	=	Additional LUPPU / 2004 GP Units	% New Housing Increase
El Dorado Hills	7,872	-	7,290	=	582	53%
Cameron Park	4462	-	341	=	4121	59%
Shingle Springs	2,018	-	116	=	1902	124%
Diamond Springs / El Dorado	4,960	-	652	=	4308	101%
<b>Total</b>					<b>10,916</b>	

*Accurate per DOT  
Per Claudia W...  
NATIVE CENTER*

*341  
116  
652  
-----  
1109  
Approved lots left  
Diamond Sp, Cam Park,  
Shingle Springs El  
DORADO*

<sup>1</sup> CEDAC/LUPPU 2013: Potential units from sub-dividing "Currently Approved Lots"