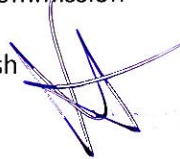


MEMORANDUM

TO: Merced County Board of Supervisors
Merced County Planning Commission

FROM: Jim Harnish, Mintier Harnish 

DATE: December 14, 2009

SUBJECT: Merced County General Plan Update – Additional Detail and Analysis on Revised General Plan Alternatives D and E

CC: Bobby Lewis, Merced County Planning Department
Bill Nicholson, Merced County Planning Department
Dan Amsden, Mintier Harnish

Dear Supervisors and Commissioners:

County Staff and the GPU Consultants presented the Revised Alternatives Report (October 2009) during the sixth Joint Study Session (November 10, 2009) on the General Plan Update. The Board and Commission discussed the report and received public comments. At the end of the joint study session the Board and Commission asked for additional detailed information to help reach a decision on a preferred growth alternative to be used as the basis of the updated General Plan. In response to the Board and Commission questions, this memo:

1. Compares future land demands for the growth Alternatives D and E at both average residential densities (5.7 and 7.1 dwelling units per acre);
2. Provides more detail on farmland impacts under each alternative/density, specifically prime farmland; and
3. Presents example policy options for each alternative.

1. FUTURE LAND DEMANDS FOR REVISED ALTERNATIVES D AND E UNDER BOTH RESIDENTIAL DENSITIES

1.1 Population and Employment Projections

Projected population growth is an important constant used to develop the alternatives. Based on the State of California's Department of Finance projections, the County assumed that the overall 2030 countywide population will be 431,000 (*note: Alternative B2 presented back in February 2009 used a different population projection to test the affect of new town growth*). This projected growth represents an 80 percent increase in countywide population between 2005 and 2030. Revised alternative D and E, however, allocate future population growth to different parts of the county.

Table A shows a detailed breakdown of where population and employment is allocated under the two revised alternatives (D and E). As shown in the table, changes to residential densities do not alter either population or employment projections under the two alternatives. Rather they affect how much land is required to accommodate future growth (e.g., higher residential densities result in less land needed to accommodate population growth).

Table A also shows that Alternative D would result in a 78 percent increase in countywide employment and Alternative E would result in an 82 percent increase in countywide employment. This difference is based largely on the fact that cities receive more population growth under Alternative E and that cities have more holding capacity to develop new employment uses.

TABLE A												
Alternatives Population and Employment Projections												
Location	Total Population						Total Employment					
	Existing (2005)	2030					Existing (2005)	2030				
		MCAG	Alt. D 5.7 du/acre	Alt. D 7.1 du/acre	Alt. E 5.7 du/acre	Alt. E 7.1 du/acre		MCAG	Alt. D 5.7 du/acre	Alt. D 7.1 du/acre	Alt. E 5.7 du/acre	Alt. E 7.1 du/acre
Cities												
Atwater	26,800	42,700	49,800	49,800	53,000	53,000	7,681	12,238	14,273	14,273	15,190	15,190
Dos Palos	4,900	8,500	9,400	9,400	6,900	6,900	1,045	1,813	2,005	2,005	1,472	1,472
Gustine	5,300	9,000	9,100	9,100	7,300	7,300	2,372	4,028	4,073	4,073	3,267	3,267
Livingston	12,400	20,600	24,400	24,400	28,400	28,400	4,767	7,919	9,380	9,380	10,918	10,918
Los Banos	32,600	67,100	49,084	49,084	55,198	55,198	3,905	8,038	5,880	5,880	6,612	6,612
Merced	74,000	116,800	128,770	128,770	142,945	142,945	44,513	70,258	77,459	77,459	85,985	85,985
Subtotal	156,000	264,700	270,554	270,554	293,743	293,743	64,283	104,294	113,069	113,069	123,444	123,444
% increase from 2005	-	70%	73%	73%	88%	88%	-	62%	76%	76%	92%	92%
Existing Specific Urban Development Plans (SUDP)												
Delhi	10,400	21,300	16,950	16,950	11,250	11,250	149	305	243	243	161	161
Franklin/Beachwood	4,200	4,900	4,900	4,900	5,379	5,379	90	105	105	105	115	115
Hilmar	5,300	9,500	6,700	6,700	5,670	5,670	500	896	632	632	535	535
Le Grand	1,800	2,400	4,300	4,300	5,257	5,257	101	135	134	134	134	134
Planada	4,600	6,900	6,700	6,700	9,138	9,138	225	338	328	328	447	447
Santa Nella	1,800	8,200	2,800	2,800	3,738	3,738	564	2,569	877	877	1,171	1,171
Snelling	300	500	400	400	394	394	25	42	33	33	33	33
Winton	9,500	13,900	18,100	18,100	17,102	17,102	254	372	484	484	457	457
Subtotal	37,900	67,600	60,850	60,850	57,928	57,928	1,908	4,762	2,836	2,836	3,053	3,053
% increase from 2005	-	78%	61%	61%	53%	53%	-	150%	49%	49%	60%	60%
Remaining Unincorporated Areas												
Subtotal	44,900	69,700	55,150	55,150	50,196	50,196	21,294	31,964	25,612	25,612	23,687	23,687
% increase from 2005	-	55%	23%	23%	12%	12%	-	50%	20%	20%	11%	11%
New Towns												
UC Merced/Univ. C.P.	1,200	29,300	22,200	22,200	15,850	15,850	500	12,208	9,250	9,250	6,604	6,604
Villages of Laguna S. L.	0	0	22,546	22,546	13,583	13,583	0	0	6,205	6,205	3,723	3,723
Subtotal	1,200	29,300	44,746	44,746	29,433	29,433	500	12,208	15,455	15,455	10,327	10,327
% increase from 2005	-	2342%	3629%	3629%	2353%	2353%	-	2342%	2991%	2991%	1965%	1965%
TOTAL	240,000	431,300	431,300	431,300	431,300	431,300	87,985	153,228	156,972	156,972	160,511	160,511
% increase from 2005	-	80%	80%	80%	80%	80%	-	74%	78%	78%	82%	82%

Note: Table A has been updated from the previous Revised Alternatives Report to show more accurate buildout numbers for the Villages of Laguna San Luis based property owner comments.

Sources: City General Plans; Merced County GIS (2007), MCAG (2008), and Mintier Harnish (2009).

1.2 Future Total Acreage Projections

Table B shows a breakdown of the projected land needed to accommodate growth under the two alternatives/residential densities. As shown in the table, changes to average residential densities has a large effect on the amount of future land needed to accommodate growth. The following summary of Table B identifies the increases in urban land by geographic area:

Total Projected Countywide Growth by the Year 2030

- Alternative D (5.7 du/acre): 56 percent increase, resulting in 48,922 total acres.
- Alternative D (7.1 du/acre): 44 percent increase, resulting in 45,230 total acres.
- Alternative E (5.7 du/acre): 54 percent increase, resulting in 48,157 total acres.
- Alternative E (7.1 du/acre): 42 percent increase, resulting in 44,593 total acres.

Six Cities Only

- Alternative D (5.7 du/acre): 54 percent increase, resulting in 32,056 total acres.
- Alternative D (7.1 du/acre): 42 percent increase, resulting in 29,479 total acres.
- Alternative E (5.7 du/acre): 61 percent increase, resulting in 33,503 total acres.
- Alternative E (7.1 du/acre): 47 percent increase, resulting in 30,601 total acres.

Existing County Specific Urban Development Plan (SUDP) Areas Only

- Alternative D (5.7 du/acre): 38 percent increase, resulting in 5,556 total acres.
- Alternative D (7.1 du/acre): 31 percent increase, resulting in 5,308 total acres.
- Alternative E (5.7 du/acre): 31 percent increase, resulting in 5,289 total acres.
- Alternative E (7.1 du/acre): 26 percent increase, resulting in 5,090 total acres.

Remaining Unincorporated Areas Only

- Alternative D (5.7 du/acre): 17 percent increase, resulting in 7,209 total acres.
- Alternative D (7.1 du/acre): 15 percent increase, resulting in 7,079 total acres.
- Alternative E (5.7 du/acre): 10 percent increase, resulting in 6,756 total acres.
- Alternative E (7.1 du/acre): 9 percent increase, resulting in 6,689 total acres.

New Towns Only

- Alternative D (5.7 du/acre): 1,087 percent increase, resulting in 4,101 total acres.
- Alternative D (7.1 du/acre): 874 percent increase, resulting in 3,364 total acres.
- Alternative E (5.7 du/acre): 655 percent increase, resulting in 2,609 total acres.
- Alternative E (7.1 du/acre): 541 percent increase, resulting in 2,213 total acres.

TABLE B
Total Acreage Projections by Alternative

Location	Existing (2005)	2030									
		MCAG		Alt. D 5.7 du/ac		Alt. D 7.1 du/ac		Alt. E 5.7 du/ac		Alt. E 7.1 du/ac	
		Total Acres	% Inc.	Total Acres	% Inc.	Total Acres	% Inc.	Total Acres	% Inc.	Total Acres	% Inc.
Cities											
Atwater	3,528	5,323	51%	6,050	71%	5,199	47%	6,239	77%	5,331	51%
Dos Palos	635	917	44%	987	56%	954	50%	770	21%	754	19%
Gustine	882	1,388	57%	1,402	59%	1,230	40%	1,114	26%	1,040	18%
Livingston	1,417	2,347	66%	2,778	96%	2,368	67%	3,022	113%	2,551	80%
Los Banos	3,839	7,475	95%	5,357	40%	4,772	24%	5,847	52%	5,071	32%
Merced	10,492	14,392	37%	15,482	48%	14,956	43%	16,511	57%	15,854	51%
Subtotal	20,793	31,842	53%	32,056	54%	29,479	42%	33,503	61%	30,601	47%
Existing Specific Urban Development Plans (SUDP)											
Delhi	1,070	2,178	103%	1,514	41%	1,440	35%	1,127	5%	1,117	4%
Franklin/Beachwood	453	528	17%	502	11%	494	9%	531	17%	518	15%
Hilmar	701	1,240	77%	821	17%	801	14%	730	4%	726	4%
Le Grand	178	237	33%	343	93%	316	78%	399	124%	363	104%
Planada	437	653	49%	569	30%	548	25%	708	62%	665	52%
Santa Nella	297	1,035	249%	378	27%	366	23%	427	44%	410	38%
Snelling	46	76	66%	56	22%	54	18%	55	19%	53	16%
Winton	856	1,251	46%	1,373	60%	1,289	51%	1,312	53%	1,238	45%
Subtotal	4,038	7,198	78%	5,556	38%	5,308	31%	5,289	31%	5,090	26%
Remaining Unincorporated Areas											
Subtotal	6,139	9,157	49%	7,209	17%	7,079	15%	6,756	10%	6,689	9%
New Towns											
UC Merced/ University C.P.	345	3,659	959%	1,887	446%	1,706	394%	1,285	272%	1,187	244%
Villages of Laguna San Luis	0	0	0%	2,214	-	1,658	-	1,324	-	1,026	-
Subtotal	345	3,659	959%	4,101	1087%	3,364	874%	2,609	655%	2,213	541%
TOTAL	31,315	51,856	66%	48,922	56%	45,230	44%	48,157	54%	44,593	42%

Sources: City General Plans; Merced County GIS (2007), MCAG (2008), and Mintier Harnish (2009).

1.3 Future Farmland and Prime Farmland Conversion

Table C summarizes the estimated future farmland and prime farmland that would be converted to urban uses under each alternative/density. In order to conduct this analysis the Consultants inventoried all productive farmland (i.e., soils rated as prime, statewide important, and unique by the State Department of Conservation) within each city sphere of influence, County SUDP boundary, and new town project boundary. This analysis determined what percent of the remaining undeveloped land falls into each farmland category. This percentage was then applied to new developed acres for each city, County SUDP, and new town. The analysis does not include the remaining unincorporated areas of the county because these areas do not have defined boundaries necessary for determining farmland impacts.

As shown in the table, Alternative D at 5.7 dwelling units per acre has the largest impact on total farmland acres converted to urban uses (8,095 acres). This is because the alternative has a lower average residential density and most of the growth is focused in cities and existing SUDPs which are adjacent to farmland. Alternative E at 7.1 dwelling units per acre has the least impact on farmland (5,887 acres). This is because it has higher residential densities and allocates growth in areas with lower habitat and farmland impacts.

A question was also raised by the Board and Commission related to how much farmland would be protected if the County emphasized new town growth off the valley floor. This approach would protect a significant amount of farmland. For instance, the project area for the Villages of Laguna San Luis contains only six percent productive farmland, of which four percent is prime. Table C, however, does not show this savings because the new town category also includes UC Merced/University Community Plan which has a larger impact on productive farmland (64 percent productive farmland, of which 34 percent is prime).

TABLE C					
Estimated Farmland Consumed by New Development					
Location	Total New Developed Acres	Total Productive Farmland¹		Prime Farmland Only	
		Acres	%	Acres	%
Alternative D (5.7 du/ac)					
Cities	11,264	5,866	72%	3,831	73%
Existing SUDPs	1,518	1,109	14%	816	16%
New Towns	3,755	1,120	14%	617	12%
Subtotal	16,537	8,095	100%	5,264	100%
Alternative D (7.1 du/ac)					
Cities	8,686	4,190	69%	2,649	69%
Existing SUDPs	1,272	929	15%	684	18%
New Towns	3,018	971	16%	532	14%
Subtotal	12,976	6,090	100%	3,865	100%
Alternative E (5.7 du/ac)					
Cities	12,710	6,402	81%	4,081	78%
Existing SUDPs	1,251	846	11%	780	15%
New Towns	2,263	681	9%	375	7%
Subtotal	16,224	7,929	100%	5,236	100%
Alternative E (7.1 du/ac)					
Cities	9,809	4,575	78%	2,806	74%
Existing SUDPs	1,053	711	12%	655	17%
New Towns	1,868	601	10%	329	9%
Subtotal	12,730	5,887	100%	3,790	100%

Notes:

1. The "Total Productive Farmland" category includes soils rated as prime, statewide important, and unique as mapped by the State Department of Conservation.

Sources:

Merced County GIS (2007) and Mintier Harnish (2009).

2. POLICY ALTERNATIVES

Table D provides some example draft policies that could be incorporated into the Merced County General Plan. These examples illustrate options for how the County could implement the alternatives, and are intended to show the differences in public policy emphasis between the alternatives. Please note that the Board and Commission may choose to create a hybrid alternative that includes parts of each revised alternative.

TABLE D	
Example Draft Policy Alternatives	
Revised Alternative D	Revised Alternative E
City-Centered Growth	
<ul style="list-style-type: none"> The County shall actively encourage MCAG to increase regional housing needs allocations for the six incorporated cities. The County shall not approve Community Plan Updates for existing communities that include increased residential holding capacity. 	<ul style="list-style-type: none"> The County shall request MCAG to consider the availability of infrastructure when allocating regional housing needs. The County shall not approve new or revised SUDPs without sufficient or fully-funded wastewater treatment capacity.
Increased Residential Densities	
<ul style="list-style-type: none"> The County shall encourage new development to provide a range of housing types and densities. The County shall encourage the use of innovative development, including compact, mixed-use, and walkable communities. 	<ul style="list-style-type: none"> The County will ensure new residential development achieves a minimum average residential density of 8.1 DUs per acre through the approval of Community Specific Plans. The County shall actively encourage LAFCO to withhold approval of City annexations of residential development projects that do not achieve a minimum average residential density of 8.1 DUs per acre.
Intergovernmental Coordination	
<ul style="list-style-type: none"> The County shall work cooperatively with the six cities, through MCAG and LAFCO, and other governmental organizations to agree on a countywide vision for urban growth and open space preservation. 	<ul style="list-style-type: none"> The County will initiate a cooperative effort with the six cities and MCAG to establish a vision and guiding principles for a countywide Sustainable Communities Plan consistent with the preferred Blueprint option.
New Town Growth	
<ul style="list-style-type: none"> The County shall encourage additional new towns on non-productive farmland off the valley floor as the preferred location for population growth in the unincorporated area. 	<ul style="list-style-type: none"> The County shall not approve new SUDPs until the first phase of all adopted “new town” SUDPs are complete.

TABLE D	
Example Draft Policy Alternatives	
Revised Alternative D	Revised Alternative E
Agricultural Land Preservation	
<ul style="list-style-type: none"> • The County shall initiate a countywide agricultural land mitigation program that includes the six cities to assure consistency in the mitigation of agricultural land conversion to urban uses. • The County shall not establish new, or expand existing, Rural Residential Centers (one-acre lot residential densities). 	<ul style="list-style-type: none"> • The County shall not allow the establishment of new SUDPs or the expansion of an existing SUDPs where more than 50 percent of the land area involves productive farmland. • The County shall encourage cities to avoid growth in areas with concentrations of prime and productive farmland during negotiations over new General Plan designations and changes to Sphere of Influence boundaries.
Water Supply¹	
<ul style="list-style-type: none"> • The County shall initiate and participate in funding a countywide water forum to coordinate long-term water demand and supply in the County. 	<ul style="list-style-type: none"> • The County shall not approve new or revised SUDPs without verifiable evidence of long-term water supplies.

Notes:

1. As mentioned during the November 10, 2009, Joint Study Session, the recently completed General Plan Update study entitled "Qualitative Comparison of Water Supply and Demand in Merced County" (November 2009) did not identify a preferred alternative in terms of water supply. However, the study did recognize that increasing residential densities results in less productive farmland conversion and greater groundwater recharge.

Sources:

Merced County (2009) and Mintier Harnish (2009).