

APPENDIX D – LAND USE PROJECTIONS

INTRODUCTION

To properly analyze the impacts associated with the land use and development provisions in the General Plan, the City projected estimates of the development potential, in terms of housing units, square footage, and jobs that will result from building out the General Plan Land Use Diagram. The assumptions behind the development projections were intended to provide the most accurate estimate of future development. Making projections for average future development potential, rather than estimating maximum development potential, helped avoid overstating impacts.

METHODOLOGY

POPULATION

Over the past forty years, Chico's population has experienced a steady growth rate, averaging approximately two percent a year. By projecting this growth rate forward from a 2006 City population of 79,091 to the year 2030 and subtracting the City population in the General Plan base year of 2008, the City determined the need to plan for 40,262 new residents. The Land Use Diagram was developed to accommodate these new residents and provide additional land capacity beyond the projected need to address the fact that not all of the identified land will be available for development at any given time based on landowner willingness to sell or develop, site readiness, environmental constraints, market changes, and other factors.

ASSUMPTIONS AND PROJECTIONS

The land use assumptions used to project future development potential are documented in the spreadsheet provided below. It is organized by land use designation (including additional categories for Downtown and Corridor Opportunity Sites) and development type (Special Planning Areas, infill, and underutilized sites). The columns in the spreadsheet contain assumptions that were used to arrive at the final development projections, including:

- **Land Use Mix Assumptions.** Because the majority of mixed use designations allow, rather than require a combination of uses, the assumptions about the mix of uses assume that some mixed use sites will be developed exclusively with their primary use and others will integrate additional uses.
- **Site Development Considerations.** The site development factors in this section of the spreadsheet refine the development potential by applying regulatory constraints (e.g., allowed density¹ and intensity of development), along with development standards, such as floor area ratio and parking area, that inform the average density and intensity assumptions for each land use category.

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- **Employment Factors.** The employment factors represent the number of square feet per employee in four land use types, and they reflect industry standard averages provided by Bay Area Economics and research done by the Sacramento Area Council of Governments in their Blueprint Land Use Modeling.
- **Parcel Specific Land Use Development Assumptions.** These columns summarize data from prior columns in the spreadsheet to create the following critical values needed to calculate the development potential of each land use category: Gross-to-Net Factor², Average Dwelling Units per Net Acre, Average Number of Employees per Net Acre, and Average Floor Area Ratio. Projections were calculated for three different development types, the sum of which became the estimate of the total development associated with General Plan build-out. The three development types are:
 1. **Special Planning Areas.** Values used to calculate development potential within the Special Planning Areas.
 2. **Undeveloped Infill Sites.** Values apply to all vacant land outside the designated Special Planning Areas, including the approved, but not yet developed Meriam Park project (designated SMU).
 3. **Underutilized Opportunity Sites.** Values apply to 13 - 15% of the developed property within Opportunity Sites which is assumed to redevelop during the General Plan build-out time frame. The remaining 85 - 87% is accounted for as existing development.

Using the assumptions above to generate formulas that incorporated site development considerations, land use mix assumptions, employment factors, location, and development type, the City estimated development and employment projections for the build-out of the General Plan in terms of dwelling units, square feet of non-residential development and the corresponding number of employees for each land use category.

¹ Allowed density ranges are provided in gross acreage figures, while the estimated densities reflect a conversion to net acreage using the estimated gross-to-net factor provided in the land use assumption spreadsheet.

² The gross-to-net factor column estimates (by general rule of thumb) the percentage of gross land that would be removed from development potential for major infrastructure (roads and utilities). This number varies by land use type and location.

**City of Chico 2030 General Plan
Land Use Development Assumptions 10-27-09**

Site Development Considerations	SITE DEVELOPMENT CONSIDERATIONS													
General Plan Land Use Designation	Allowed Density Range (DV/Gross AC)	Allowed Development Intensity (FAR minimum and maximum)	Residential Type	Average Residential DU Size	Average Lot Size (Gross SF)	Maximum Number of Stories	Setback and Landscape %	SF per Parking Space (including drive aisles)	Parking Ratios/1000 SF or /DU					Parking # Levels
									Residential	Retail	Office	Industrial	Public	
Residential and Residential Mixed Use Designations														
Very Low Density Residential	0.2 - 2 du/ac	NA	Detached	3200	39,204	2	15	400	2	0	0	0	0	1
Low Density Residential	2 - 7 du/ac	NA	Detached	1900	7,920	2	30	500	2	0	0	0	0	1
Medium Density Residential	7 - 14 du/ac	NA	Both	1500	4,148	3	25	450	2.25	0	0	0	0	1
Medium High Density Residential	14 - 22 du/ac	NA	Attached	1200	N/A	3	25	450	2.25	0	0	0	0	1
High Density Residential	20 - 70 du/ac	NA	Attached	980	N/A	5	20	400	2.25	0	0	0	0	1
Residential Mixed Use	10 - 20 du/ac	0.2 - 0.4 FAR	Attached	750	N/A	3	20	400	1.75	3.5	4.5	0	0	1
Residential Mixed Use (Downtown/Transit Corridor)	20 - 60 du/ac	0.2 - 0.5 FAR	Attached	750	N/A	5	20	400	1.75	3	4.5	0	0	1
Special Mixed Use (Meriam Park)	7 - 35 du/ac	0.2 - 2.0 FAR	Both	1000	N/A	3	25	400	2	1.7	1.7	0	0	1
Commercial and Commercial Mixed Use Designations														
Neighborhood Commercial	NA	.25 - .5 FAR	N/A	750	N/A	2	30	450	2	4.5	3.3	0	0	1
Mixed Use Neighborhood Core	6 - 22 du/ac	.28 - 1.0 FAR	Attached	750	N/A	3	30	450	2	4.5	3.3	0	0	1
Commercial Service	NA	.25 - .5 FAR	N/A			2	30	450	0	4.5	3.3	0	0	0
Commercial Mixed Use	6 - 20 du/ac (1)	.28 - 1.0 FAR	Attached	750	N/A	3	25	450	2	4.25	3.3	0	0	1
Commercial Mixed Use (Downtown)	6 - 60 du/ac	.4 - 2.5 FAR	Attached	750	N/A	4	20	400	1.75	1.6	3.3	0	0	3
Regional Commercial	6 - 20 du/ac	.28 - 2.0 FAR	Attached	750	N/A	3	35	450	2	4.5	3.3	0	0	2
Office, Mixed Use Jobs, and Industrial Designations														
Office Mixed Use	6 - 20 du/ac (1)	.4 - 2.0 FAR	Attached	0	N/A	3	28	450	0	3.5	4.25	0	0	1
Office Mixed Use (Downtown)	20 - 60 du/ac	.5 - 2.0 FAR	Attached	700	N/A	5	20	400	2	1.6	3.75	0	0	3
Industrial Office Mixed Use	7 - 14 du/ac (1)	.3 - 1.5 FAR	N/A	0	N/A	2	30	500	0	0	4	3	0	1
Manufacturing & Warehousing	NA	.3 - .75 FAR	N/A	0	N/A	1	40	500	0	0	0	3	0	1
Public, Open Space, and Resource Designations														
Public Facilities and Services	NA	0 - 1.0 FAR	N/A	0	N/A	3	30	400	0	0	0	0	5	1
Open Space	NA	NA	N/A	0	N/A	N/A	N/A	400	0	0	0	0	0	1
Open Space Resource Management	NA	NA	N/A	0	N/A	N/A	N/A	400	0	0	0	0	0	1
Butte County General Plan Land Use Designations														
Rural Residential	0 - 0.2 du/ac	NA	Detached	2800	435,600	2	15	400	2	0	0	0	0	1

Notes:

(1) When residential development is integrated vertically with non-residential uses, there is no minimum density.

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Land Use Development Assumptions 10-27-09**

Employment Factors	EMPLOYMENT FACTORS			
General Plan Land Use Designation	Average SF/Employee by Land Use			
	Retail	Office	Industrial	Public
Residential and Residential Mixed Use Designations				
Very Low Density Residential	0	0	0	0
Low Density Residential	0	0	0	0
Medium Density Residential	0	0	0	0
Medium High Density Residential	0	0	0	0
High Density Residential	0	0	0	0
Residential Mixed Use	500	275	0	0
Residential Mixed Use (Downtown/Transit Corridor)	500	275	0	0
Special Mixed Use (Meriam Park)	500	275	0	0
Commercial and Commercial Mixed Use Designations				
Neighborhood Commercial	500	275	0	0
Mixed Use Neighborhood Core	500	275	0	0
Commercial Service	500	275	0	0
Commercial Mixed Use	500	275	0	0
Commercial Mixed Use (Downtown)	500	275	0	0
Regional Commercial	500	275	0	0
Office, Mixed Use Jobs, and Industrial Designations				
Office Mixed Use	500	275	0	0
Office Mixed Use (Downtown)	500	275	0	0
Industrial Office Mixed Use	0	275	900	0
Manufacturing & Warehousing	0	0	1100	0
Public, Open Space, and Resource Designations				
Public Facilities and Services	0	0	0	650
Open Space	0	0	0	0
Open Space Resource Management	0	0	0	0
Butte County General Plan Land Use Designations				
Rural Residential	0	0	0	0

**City of Chico 2030 General Plan
Land Use Development Assumptions 10-27-09**

Geographic Assumption Factors	PARCEL SPECIFIC LAND USE DEVELOPMENT ASSUMPTIONS												
General Plan Land Use Designation	VACANT LAND - SPECIAL PLANNING AREAS				UNDEVELOPED INFILL SITES				UNDERUTILIZED OPPORTUNITY SITES				
	Gross-to-Net Factor (1)	Estimated Average DU/Net AC (1)	Calculated Average EMP/Net AC (1)	Estimated Average FAR (1)	Gross-to-Net Factor	Estimated Average DU/Net AC	Calculated Average EMP/Net AC	Estimated Average FAR	Estimated Average DU/Net AC	Calculated Average EMP/Net AC	Estimated Average FAR	Estimated Redevelopment by 2030	Counter Percent
Residential and Residential Mixed Use Designations													
Very Low Density Residential	80%	1.5	N/A	N/A	N/A	1	N/A	NA	2	N/A	NA	15%	85%
Low Density Residential	68%	5.3	N/A	N/A	75%	5	N/A	NA	5	N/A	NA	15%	85%
Medium Density Residential	70%	12.3	N/A	N/A	80%	12	N/A	NA	12	N/A	NA	15%	85%
Medium High Density Residential	70%	18.3	N/A	N/A	85%	20	N/A	NA	19	N/A	NA	15%	85%
High Density Residential	75%	40	N/A	N/A	90%	40	N/A	NA	65	N/A	NA	15%	85%
Residential Mixed Use	70%	16.5	1	0.28	85%	16	2	0.35	16	2	0.35	15%	85%
Residential Mixed Use (Downtown/Transit Corridor)	N/A	N/A	N/A	0.28	95%	50	5	0.4	40	5	0.4	15%	85%
Special Mixed Use (Meriam Park)	N/A	N/A	N/A	N/A	80%	12	13	0.4	N/A	N/A	N/A	N/A	N/A
Commercial and Commercial Mixed Use Designations													
Neighborhood Commercial	N/A	N/A	N/A	0.3	90%	N/A	26	0.3	N/A	29	0.3	13%	87%
Mixed Use Neighborhood Core	75%	6	21	0.3	90%	14	29	0.35	14	32	0.35	13%	87%
Commercial Service	N/A	N/A	N/A	0.28	95%	N/A	31	0.3	N/A	33	0.3	13%	87%
Commercial Mixed Use	75%	14	19	0.35	90%	12	30	0.4	10	33	0.4	13%	87%
Commercial Mixed Use (Downtown)	N/A	N/A	N/A	N/A	95%	30	65	0.75	16	55	0.6	13%	87%
Downtown Retail Mixed Use	N/A	N/A	N/A	N/A	95%	34	86	1.1	30	82	1.0	13%	87%
Regional Commercial	78%	13.5	27	0.35	90%	16	35	0.4	14	39	0.4	13%	87%
Office, Mixed Use Jobs, and Industrial Designations													
Office Mixed Use	75%	12	68	0.65	85%	14	100	0.8	12	111	0.8	15%	85%
Office Mixed Use (Downtown)	N/A	N/A	N/A	N/A	90%	30	132	1.15	30	140	1.1	15%	85%
Industrial Office Mixed Use	80%	10	21	0.35	85%	10	25	0.4	10	30	0.4	16%	84%
Manufacturing & Warehousing	80%	N/A	9	0.32	85%	N/A	12	0.35	N/A	14	0.35	16%	84%
Public, Open Space, and Resource Designations													
Public Facilities and Services	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Open Space	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Open Space Resource Management	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Butte County General Plan Land Use Designations													
Rural Residential	95%	0.1	N/A	N/A	N/A	0.1	0	NA	0.1	0	NA	15%	85%

(1) Development assumptions within the Special Planning Areas vary slightly from one another based on existing development, environmental conditions, existing and expected future infrastructure, and proximity to the City Center (Downtown) in terms of future density and intensity of development. Estimated average numbers in this table represent the average development assumption used in the five Special Planning Areas.