CHAPTER 2

ASSUMPTIONS AND DEVELOPMENT ESTIMATES

This chapter summarizes estimated development potential under the *General Plan* and the assumptions upon which these estimates are based. The chapter presents estimates of development levels in the year 2020 and estimates of holding capacity at "buildout" of the Plan. These estimates, particularly the 2020 estimates, provide the basis for much of the impact assessment in the rest of this report.

2.1 GEOGRAPHIC BASIS FOR ANALYSIS

As described in Chapter 1, the Land Use Diagram designates land uses for the entire Woodland General Plan Area. The General Plan Area is bounded on the north by Cache Creek, on the east by the Yolo Bypass, on the south by County Road 27, and on the west by County Road 93. This General Plan Area was jointly established by the City and Yolo County in 1979. It includes the City of Woodland's Planning Area, the regional park site, and the two unincorporated communities of Willow Oaks and Monument Hills. The remaining area is designated for agricultural and open space uses.

Outside the Planning Area, the General Plan proposes no changes to the designations included in 1988 General Plan or to the Yolo County *Woodland Area General Plan*. Furthermore, no land outside the Planning Area is contemplated for annexation by Woodland. Therefore, the analysis of this EIR focuses on projected development within the Planning Area.

Further, the *General Plan* would limit future development to the Urban Limit Line within the time frame of the *General Plan* (2020). This chapter therefore quantifies existing and new growth and development that would be accommodated within the Urban Limit Line in terms of housing stock, population, and commercial and industrial development and employment. Projections of future growth and development are based on the application of development assumptions to the land use designations shown on the Planning Area Land Use Diagram.

2.2 METHODOLOGY USED TO CALCULATE NEW DEVELOPMENT POTENTIAL

The holding capacity of the *General Plan* is the total population, housing, and employment that could theoretically be accommodated by the designations on the Land Use Diagram. Holding capacity was calculated based on the location, types, and densities/intensities of development permitted by the land use designations on the Planning Area Land Use Diagram. Holding capacity essentially reflects development of all vacant and underutilized land designated for urban development, and assumes that other existing development will not significantly change in use or intensity during the time frame of the plan.

The *General Plan* defines 18 residential, commercial, industrial, public service, agricultural and other land use designations to depict the types of development that will be allowed in the different geographic areas of the Planning Area.

To determine the holding capacity of planned land uses within the Urban Limit Line, City staff and the consultants calculated the total vacant and underutilized land in the Planning Area. These estimates by traffic

analysis zone are included in Appendix C of this EIR. Totals for the city limits and Planning Area are summarized in Table 2-1.

TABLE 2-1

VACANT AND UNDERUTILIZED LAND IN THE PLANNING AREA *
BY LAND USE DESIGNATION
(Acres)

Land Use Designation	Within City Limits	Outside City Limits	Total Planning Area
Urban Limit Line			
Rural Residential (RR)		25	25
Low Density Residential (LDR)	386		386
Medium Density Residential (MDR)	51		51
Planned Neighborhood (PN)[a]		1,552	1,552
Neighborhood Commercial (NC)	13	[b]	13
Central Commercial	16[c]	[e]	16
General Commercial (GC)	60[d]	80	140
Service Commercial (SC)	11	43	54
Highway Commercial (HC)	29	49	78
Industrial (I)	368	885	1,253
Business Park (BP)		236	236
Public Service (PS)	8	[b]	8
Open Space (OS)	17	[b]	17
Outside Urban Limit Line within Planning Area			
Urban Reserve (UR)		1,670	1,670
Total	**959**	**4,540**	**5,499**

*Represents only land use designations with vacant/underutilized land

[a]PN designation is assumed to be a combination of various designations, as indicated in Table 2-4, including Very Low Density Residential, Low Density Residential, and Medium Density Residential, Neighborhood Commercial, Open Space, and Public Service
[b]These designations would also include land within the PN designation
[c]Gross acreage equivalent of vacant and underutilized buildings Downtown
[d]Includes 40 acres of vacant land and 20 acres of gross acreage equivalent of vacant space in existing shopping centers
[e]Includes 45 acres on existing County Fairgrounds and parking lot
Note: Not all non-residential land is expected to fully build out by 2020.

Source: Mintier & Associates, 1995

Mintier & Associates calculated population and employment development potential by applying factors for the assumed residential density or use intensity to the amount of acreage within each designation, except in areas where more specific data existed (i.e., the *Southeast Area Specific Plan* and existing subdivisions). The factors reflect adjustments based on historic experience that indicates most land will not develop at its maximum allowed intensity because of market forces, parcel-specific site constraints, regulatory constraints (e.g., zoning), and other factors. The development densities and intensities reflected in these factors are, therefore, lower than those maximum standards for the land use designations defined in the *Policy Document.*

The result of these adjustments are development estimates that are more realistic than estimates based on maximum permitted development intensity. Table 2-2 lists the maximum allowable density/intensity for each land use designation, the assumed average density/intensity applied to calculate development potential, and the category of dwelling units or employees to which each land use designation was converted.

Development estimates were based on the land use designations of the Land Use Diagram. The following general assumptions concerning residential density, population density, and building intensity were used in calculating of development potential under the *General Plan.* For each land use designation, the *Policy Document* specifies either a range of residential densities or a maximum floor area ratio (FAR).

RESIDENTIAL USES

Standards of building intensity for residential uses are stated as the allowable range of dwelling units per ***gross acre.*** *Gross acreage* includes all land (including streets and rights-of-way) designated for a particular residential use, while *net acreage* excludes streets and rights-of-way. In urban areas, net acreage is normally 20 to 25 percent less than gross acreage. In rural areas and open space areas, the difference between net and gross can be as low as five percent. Net acreage is the standard typically used in zoning, while gross acreage is more commonly used in general plan designations.

Standards of population density for residential uses can be derived by multiplying the maximum allowable number of dwelling units per gross acre by the average number of persons per dwelling unit assumed for the applicable residential designation. Typically, household sizes are larger in single-family homes than in multiple-family units, therefore assumed household sizes vary according to the type and density of housing allowed in each residential designation.

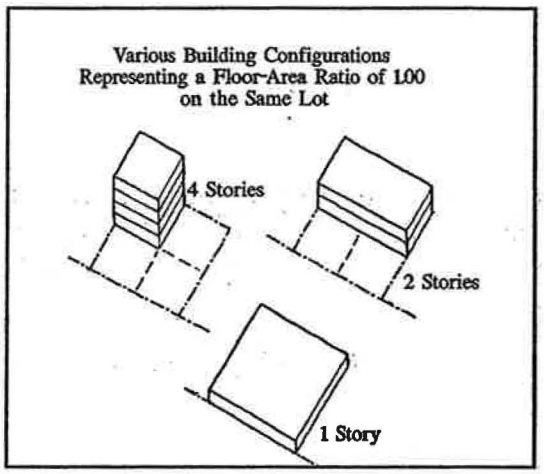
The assumed average number of persons per dwelling unit for each residential designation is based on population and housing unit estimates prepared by the Sacramento Area Council of Governments (SACOG). To estimate population holding capacity, all areas were assumed to have a five percent residential vacancy rate. The number of occupied housing units was then multiplied by an assumed number of persons per household that varies by housing type. These estimates are described in the following section.

NON-RESIDENTIAL USES

Standards of building intensity for the non-residential designations in the *General Plan* are stated as maximum *floor-area ratios* (FARs). A floor-area ratio is the ratio of the gross building square footage on a lot to the net square footage of the lot.

For example, on a lot with 10,000 net square feet of land area, a FAR of 1.00 will allow 10,000 square feet of gross building floor area to be built, regardless of the number of stories in the building (e.g., 5,000 square feet per floor on two floors or 10,000 square feet on one floor). On the same lot, a FAR of 0.50 would allow

5,000 square feet of floor area and FAR of 0.25 would allow 2,500 square feet. The diagram illustrates conceptually how buildings of one, two, and four stories could be developed on a given lot with a FAR of 1.00.



The development potential assumptions (i.e., dwelling units per acre, FAR) used in this EIR are, however, lower than the maximum intensities specified in the *General Plan Policy Document* for the various land use designations. These lower assumptions are reasonable expectations, based on historical experience, for the likely intensity of actual development. These assumed residential densities and FARs have been applied to the acreage within each land use designation to develop future development estimates. In some cases, however, the development estimates reflect specific approved or proposed projects.

Table 2-2 summarizes the maximums and the development assumptions that were used in this EIR.

TABLE 2-2

SUMMARY OF DENSITY/INTENSITY ASSUMPTIONS BY LAND USE DESIGNATION

Land Use Designation	Maximum Allowable Density/ Intensity	Assumed Average Density/ Intensity*	Land Use Category (units or employees)
RESIDENTIAL	***DUS per Gross Acre***	***DUS per Gross Acre***	***Type of units***
Rural Residential (RR)	0.0 to 2.0	1.0	Single Family DUs
Very-Low Density Residential (VLDR)	1.0 to 4.0	3.0	Single Family DUs
Low Density Residential (LDR)	3.0 to 8.0	5.0	Single Family DUs
Neighborhood Preservation (NP)	3.0 to 8.0	7.0	Single Family DUs
Medium/Low Density Residential (MLDR)	5.0 to 12.0	8.0	Single Family DUs
Medium Density Residential (MDR)	8.0 to 25.0	20.0	Multi-family DUs
Planned Neighborhood (PN)	1.0 to 25.0 (after redesignation to a specific General Plan designation)	6.5 (for residential component)	Single Family DUs, Multi-family DUs Retail, Schools, Parks
NON-RESIDENTIAL	***FAR***	***FAR***	***Type of employment***
Neighborhood Commercial (NC)	0.50	0.25	Retail
Central Commercial (CC)	4.00	1.00	Retail, office, government
General Commercial (GC)	0.40	0.25	Retail, office, medical office
Service Commercial (SC)	0.50	0.25	Retail, service
Highway Commercial (HC)	0.50	0.25	Retail
Business Park (BP)	0.50	0.35	Office
Industrial (I)	0.60	0.40	Industrial
Public Services (PS)	0.60	Assumed as schools and other public facilities	
Open Space (OS)	0.10	Assumed as future parks or other open space areas	
Urban Reserve (UR)	No new development assumed without General Plan Amendment		
Agriculture (A)	Any new development in areas designated for Agriculture are assumed to developed in unincorporated area under jurisdiction of Yolo County.		

Source: J. Laurence Mintier & Associates, 1995

2.3 ESTIMATES OF 2020 DEVELOPMENT POTENTIAL

The time frame of the *General Plan* is 2020. As part of the General Plan Update process, the City considered long-term population and employment projections for the Woodland area. These included estimates prepared by the Sacramento Area Association of Governments (SACOG). The City retained David Taussig & Associates to review these figures and to refine the density, housing, and employment types consistent with the *General Plan*. David Taussig & Associates prepared a residential and nonresidential absorption study, included as Appendix A and B of this report.

SACOG's projections assumed a relatively high rate of growth compared to recent trends and the City's community character. As part of the Draft General Plan review process, the City chose to plan for a slightly slower rate of growth than projected by SACOG, extending SACOG's projections for 2015 approximately by five years.

General Plan projections for population, housing, and employment growth in Woodland are summarized in Table 2-3 below.

TABLE 2-3

POPULATION, HOUSING, AND EMPLOYMENT PROJECTIONS
Woodland
1994-2020

Category	1994	2020	Increase	Compound Annual Growth Rate
Population	42,474	65,860	23,386	1.8%
Housing Units	15,822	25,272	9,450	2.0%
Employment	15,326	35,006	19,680	3.7%

Source: SACOG, David Taussig & Associates, Mintier & Associates, 1995

2.4 RESIDENTIAL DEVELOPMENT ESTIMATES

The basis for designating residential land in the Planning Area of the *General Plan* is estimated citywide growth in population by the year 2020. Therefore, the holding capacity of the *General Plan* is basically the level of residential development needed to accommodate projected population growth.

Dwelling units were estimated by vacant land use designation based on the following assumptions of Residential density:

Rural Residential (RR)	1 du/gross acre
Very Low Density Residential (VLDR)	3 du/gross acre
Low Density Residential (LDR)	5 du/gross acre
Medium Density residential (MDR)	20 du/gross acre

Within the city limits, where specific projects have been approved for construction, the actual number of approved dwelling units was used.

Areas designated as Planned Neighborhood (PN) must develop according to adopted specific plans. These areas were assumed to develop with a mix of uses according to the residential specific plan guidelines of the *General Plan* summarized in Table 2-4.

TABLE 2-4

ESTIMATED MIX OF LAND USE DESIGNATIONS WITHIN PLANNED NEIGHBORHOOD DESIGNATED AREA

Land Use Designation	Acres	Single Family Units	Multi-Family Units	Total Dwelling Units
VLDR	250	750		750
LDR	720	3,600		3,600
MDR	110		2,200	2,200
NC	30			
PS	180*			
OS	190**			
Total	**1,480**	**4,350**	**2,200**	**6,550**

*PS assumes five elementary schools at 10 acres each; one junior high school at 20 acres; one high school at 40 acres; a proposed private school at 20 acres; plus additional churches and fire stations

**Based on park standards in General Plan plus development of community park

Note: additional, unaccounted for land is assumed for buffering with agricultural lands

Source: Mintier & Associates, 1995

DWELLING UNITS

The total number of additional dwelling units that could be accommodated by the *General Plan* was calculated by applying the applying the assumed average density for each residential land use designation to the vacant residential land. Within the city limits, where available, the numbers of approved units for the area within the *Southeast Area Specific Plan* and approved subdivisions were used. These totals are summarized in Table 2-5.

TABLE 2-5

DWELLING UNITS
Woodland Urban Limit Line
1995 to 2020

	Single Family	Multi-Family	Total Units
Existing (1994)*			15,822
New (1995 - 2020)			
Within City Limits	2,100	800	2,900
Outside City Limits	4,350	2,200	6,550
Total Urban Limit Line	6,450	3,000	9,450
Total in 2020			25,272

*California Department of Finance estimates

POPULATION

Population was derived by assuming an overall five percent housing vacancy rate and then by applying the following multipliers to the dwelling unit totals in Table 2-5 and shown in Table 2-6.

- 3.0 persons per household for single family units
- 2.5 persons per household for multi-family units

TABLE 2-6

NEW POPULATION
Woodland Urban Limit Line
1995-2020

	Single Family		Multi-Family		Total	
	Occupied Housing Units*	Pop	Occupied Housing Units*	Pop	Occupied Housing Units*	Pop
Within City Limits	1,995	5,985	760	1,900	2,755	7,885
Outside City Limits	4,133	12,400	2,090	5,225	6,223	17,625
Total Urban Limit Line	6,128	18,385	2,850	7,125	8,978	25,510

*Assumes five percent residential vacancy rate

SACOG's population growth projections assume that the average household size in the existing housing stock will decline slightly over time due to the generally smaller size of the units and the aging of the population resulting in children leaving the home. A five percent reduction in the average household size of the existing housing stock is assumed over the time frame of the *General Plan.* Total population holding capacity is summarized in Table 2-7.

TABLE 2-7

TOTAL POPULATION
Woodland Urban Limit Line
2020

	Population
Existing population in existing housing stock (1994)	42,474
Population in existing housing stock in 2020*	40,350
New Population (1995 - 2020)	
Within City Limits	7,885
Outside City Limits	17,625
Total Urban Limit Line	25,510
Total in 2020	**65,860**

*Assumes five percent reduction in average household size of existing housing stock over the time frame of the *General Plan.*

2.5 NONRESIDENTIAL DEVELOPMENT ESTIMATES

Two sets of estimates for nonresidential development potential were made for the purposes of analysis in this EIR. The primary focus of this EIR is the development potential projected through 2020. The total amount of land designated for nonresidential development, however, is greater than would be needed to accommodate projected demand through 2020. Because land and location requirements for industrial development vary greatly by user, the City wanted to ensure that a wide range of parcel sizes and locations was available for future industrial development to encourage economic development. Table 2-8 shows the vacant land required for commercial and industrial demand by 2020 and the holding capacity of the plan.

TABLE 2-8

VACANT AND UNDERUTILIZED COMMERCIAL AND INDUSTRIAL LAND PROJECTED FOR DEVELOPMENT BY 2020 AND TOTAL HOLDING CAPACITY BY LAND USE DESIGNATION
(Acres)

	2020			Holding Capacity		
Land Use Designation	**Within City Limits**	**Outside City Limits**	**Total Urban Limit Line**	**Within City Limits**	**Outside City Limits**	**Total Urban Limit Line**
Commercial						
Neighborhood Commercial (NC)	13	30[a]	43	13	30[a]	43
Central Commercial (CC)	16[b]		16	16		16
General Commercial (GC)	60[c]	35	95	60[c]	80[d]	140
Service Commercial (SC)	11	8	19	11	43	54
Highway Commercial (HC)	29		29	29	49	78
Subtotal, Commercial	*129*	*73*	*202*	*129*	*202*	*331*
Industrial/Business Park						
Industrial (I)	368	475	843	368	885	1,253
Business Park (BP)	--	143	143	--	236	236
Subtotal, Indust/Bus Park	*368*	*618*	*986*	*368*	*1,121*	*1,489*
TOTAL	**497**	**691**	**1,188**	**497**	**1,323**	**1,820**

[a]30 acres of NC assumed to develop as part of Planned Neighborhood area
[b]Gross acreage equivalent of vacant and underutilized buildings Downtown
[c]Includes 40 acres of vacant land and 20 acres of gross acreage equivalent of vacant space in existing shopping centers
[d]Includes 45 acres of GC on existing County Fairgrounds and parking lot site

Source: David Taussig & Associates; Mintier & Associates, 1995

EMPLOYMENT

Employment was calculated by David Taussig & Associates by applying an assumed floor area ratio (FAR) to vacant land or by making estimates of vacant square footage in existing commercial areas, and then by using factors to convert land use designations to broad categories of employment.:

- Neighborhood Commercial (NC) — Retail employment
- Central Commercial (CC) — Office and retail
- General Commercial (GC) — Retail, office, medical
- Service Commercial (SC) — Retail employment
- Highway Commercial (HC) — Retail employment
- Industrial (I) — Light and General Industrial employment
- Business Park (BP) — High tech/bio tech and Office employment

The employment multipliers used in this analysis are shown in Table 2-9. Note that education employment was subsumed in new school development in new residential areas.

TABLE 2-9

MULTIPLIERS FOR EMPLOYMENT CATEGORIES
Woodland General Plan

Employment Category	SF per employee	FAR	Vacancy Rate	Jobs per Acre
Retail	400	0.25	10.0%	25
Office/Bus Park	350	0.30	8.0%	34
Medical	250	0.25	8.0%	40
High tech/bio tech	465	0.35	8.0%	30
Light Industrial	1,800	0.40	6.0%	9
General Industrial	1,000	0.40	6.0%	16
Education	Assumed in connection with new schools			

Source: David Taussig & Associates, 1995

Combining these categories, Table 2-10 summarizes total employment for 1994 and 2020.

TABLE 2-10

PROJECTED EMPLOYMENT GROWTH BY 2020
Woodland Urban Limit Line

Employment Category	1994	2020	Increase	Compound Growth Rate
Office	5,440	12,961	7,422	3.8%
Retail	4,219	7,621	3,402	2.7%
Industrial	4,763	13,272	8,509	4.6%
Education	805	1,152	347	1.6%
TOTAL	**15,326**	**35,006**	**19,680**	**3.8%**

Source: David Taussig & Associates, 1995