

4 Growth and Development Potential

Over the next 20 years, Turlock is expected to attract a substantial number of new residents and new jobs. Historical and recent growth trends give some indication of the amount and type of growth that Turlock can expect to see. Some of the most important purposes of the General Plan update are to project these growth numbers, estimate how much land for housing and employment the new growth will require, analyze Turlock’s existing capacity for new development, and determine where the remaining demand for land should go. This analysis has two sides: demand and supply. Demand for new land is driven by demographic and economic projections for Turlock and the region as a whole; the supply side is determined through identifying sites within the Planning Area that are appropriate for new development and calculating how much building their current General Plan designations will allow. Ultimately, by comparing land demand to existing supply, the remaining need for new land is established. Growth projections and land demand were discussed in Chapter 2: Demographic, Economic, and Fiscal Conditions; this chapter analyzes land supply and development trends.

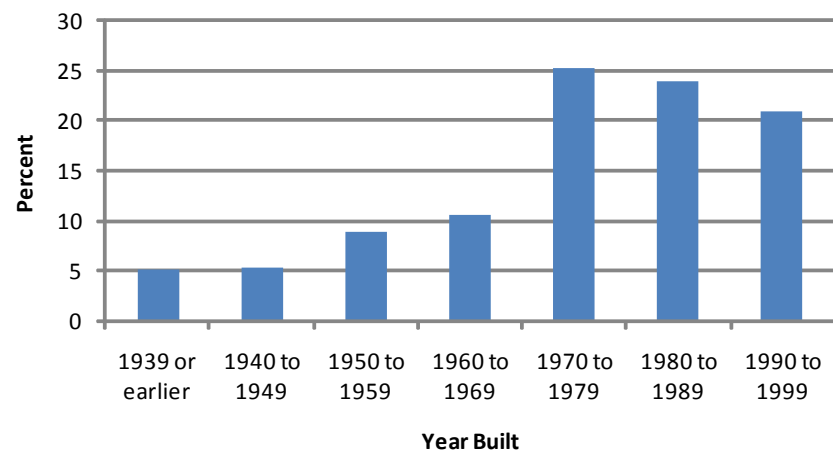
4.1 CITY GROWTH TRENDS

Residential Growth

Turlock has grown rapidly since the 1970s. Its 2000 population of 55,810 was a 32 percent increase over the 1990 count. The 2007 American Community Survey shows 26 percent growth between 2000 and 2007, bringing the estimated population to 70,412. Turlock added some 3,644 housing units in the 1990s and issued permits for another 4,745 units between 2000 and 2008. Since 2000, housing development has kept pace with estimated population growth. Turlock’s population is projected to add approximately 30,000 to 50,000 new people between 2008 and 2030, representing an average 2.2 percent annual growth. Figure 4.1 shows Turlock’s housing by year built, as a percentage of the total stock, through 2000.

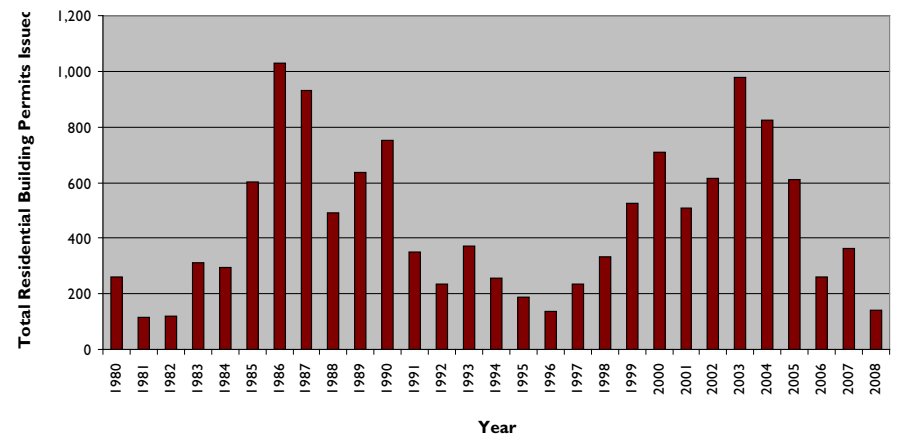
While residential growth has been steadily increasing, building permit issuances for residential development have been more cyclical, corresponding with market forces. Figure 4.2 shows annual residential (single family and multifamily) building permit issuances from 1980 to 2008. Since 1980, Turlock has seen two “boom” periods of residential growth, in the mid 1980s and in the mid 2000s, where permit issuances reached around 1,000 per year at the peak. Conversely, only around 100 permits were issued per year in the troughs, around 1981, 1996, and most recently in 2008. Over the 28 year period, the average number of annual residential building permits issued has been around 460. While not every permit issued results in an actual unit built, the general volume of permits gives a good ballpark figure for average development trends.

Figure 4-1: Year Housing Unit Built



Source: US Census 2000.

Figure 4-2: Residential Building Permit Issuances

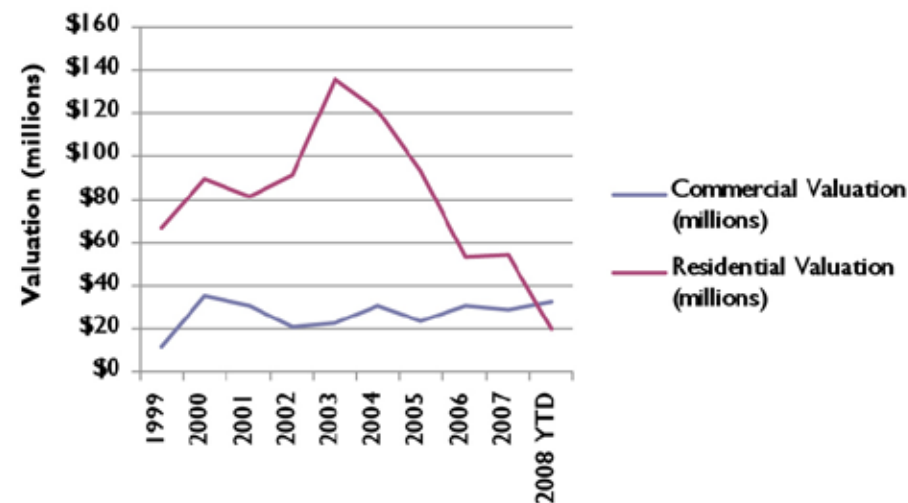


Source: HUD SOCDs

Recent Permitting

Table 4-1 shows building permits and valuation for single family, multifamily, and commercial development over the ten year period from 1999 to 2008. During that time, Turlock recorded 4,666 new single-family houses, 599 multifamily units, and \$267.1 million in commercial development. The average of 526 residential units per year since 1999 exceeds the average of 415 units per year for the overlapping 1994 – 2003 period analyzed for the 2003 Housing Element, but has slowed dramatically in recent years. Compared with the cycles of residential development, Turlock’s commercial development has been relatively steady over the last ten years and was strong in 2008. Figure 4-3 charts the valuation of residential and non-residential permits issued, illustrating the cyclical nature of the residential market versus the relatively stable commercial market.

Figure 4-3: Valuation of New Development



Source: City of Turlock, 2008.

4.2 ONGOING AND PROPOSED DEVELOPMENT

In addition to Turlock’s current inventory of completed development, there are those projects will likely be completed over the next several months and years. This section describes development projects that are currently in the pipeline. The list includes projects at all stages of the development process, from initial review to under construction. Projects that are under review, or approved but not yet permitted, represent what residents may see developed in Turlock over the next few years. As of February 2009, 21 residential projects, fourteen retail and office projects, 13 industrial projects, one mixed use project, and one new public building were in progress. Tables 4-2 and 4-3 list the current residential and non-residential development projects, respectively, and Figure 4-4 maps their location and land use.

Residential Development Projects

Of the 21 residential developments, 16 are single family and five are multifamily. The single family projects comprise 1,142 housing units on 317 acres, at an average density of 4.5 units per acre. There are a total of 567 multifamily units on 25 acres, at an average density of 25 units per acre. Finally, one mixed use project, Park Villas, is under construction. The project consists of 140 housing units and 36,500 square feet of commercial space on 11 acres. The residential density is 13 units per acre.

Non-Residential Development Projects

The retail and office projects currently in development range from neighborhood shopping centers to hotels and medical office buildings. Altogether, there are 588,400 square feet of retail and office development in the pipeline, on 54 acres. The average FAR of these developments is 0.30. The majority of the industrial projects are warehouses and industrial subdivisions in the WISP. They total 492,000 square feet on 133 acres, at an average FAR of 0.29. The only public building currently in development is the city’s new Public Safety building, located just northwest of Downtown. As of February 2009, the project has been approved by the Planning Commission, and its building plans are under review. The project is 57,570 square feet on a 4.6-acre site.

Table 4-2 Current Residential and Mixed Use Development Projects, February 2009

<i>Name / Description</i>	<i>Address</i>	<i>Site Area (acres)</i>	<i>Commercial Area (sq. ft.)</i>	<i>Lots or Units</i>	<i>Density (du/gross acre)</i>	<i>Status</i>
Single Family Detached						
Legends North 3 subdivision, including 4-ac park	3700 Colorado Avenue	20	-	65	3.25	Approved 12/05; map expires 12/09 no construction
Fairbanks Ranch	2707 E. Tuolumne Rd.	40.6	-	83	2.04	Approved 4/06; map expires 4/10
Le Chateau	3007 E. Tuolumne Rd.	19.7	-	40	2.03	Approved 6/06; map expires 4/10
Valley Development	3131 Colorado Avenue	1.42	-	12	8.45	Approved 9/07; map expires 9/09
Casa Alegre	843 Chestnut St.	0.74	-	6	8.11	Approved 4/06; map expires 4/10
Asoofi subdivision	4718 Colorado Ave.	4.38	-	20	4.57	Approved 8/05; under construction
Legends North 4 subdivision	4600 Colorado Ave.	4.35	-	15	3.45	Approved 2/05; under construction
Villagio subdivision	4312 Colorado Avenue	20.19	-	124	6.14	Approved 12/05; under construction
Voumard Ranch (The Estates & Rose Classics), and 5.88-acre portion of 22-ac greenbelt	1701 E. Zeering Road	38.5	-	140	3.64	Approved 8/04 under construction
Milestone & Summerfield Subdivisions	3900 N. Berkeley Ave., 3901 N. Berkeley Ave., 3830 Colorado Ave.	66.16	-	250	3.78	Approved 9/04 under construction
Cimarron I subdivision	4512 Colorado Ave. or 4607 N. Berkeley Ave. (one address in Cimarron II)	20.28	-	71	3.50	Approved 8/04 under construction

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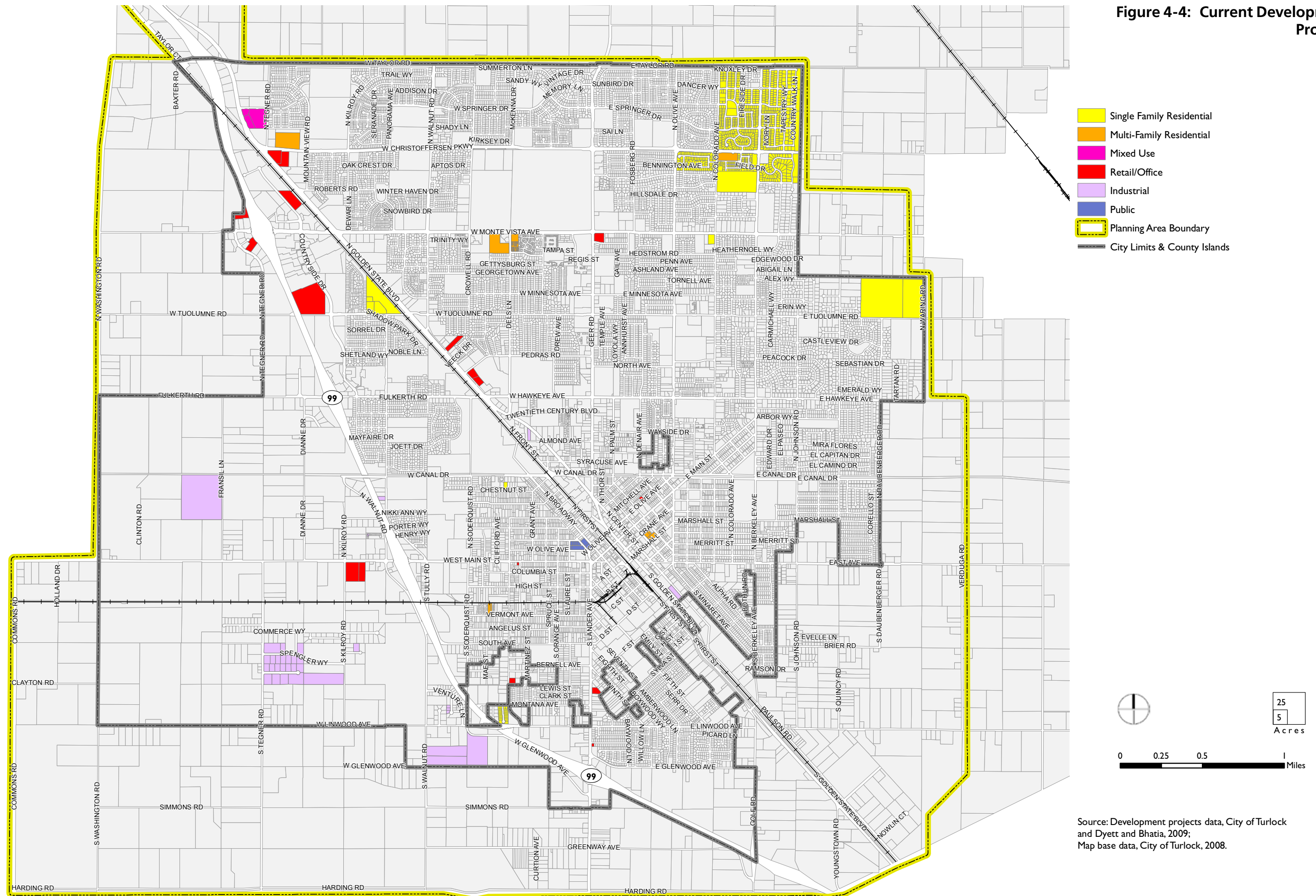
Table 4-3 Current Commercial and Public Development Projects, February 2009

<i>Description</i>	<i>Address</i>	<i>Zoning District</i>	<i>Site Area (acres)</i>	<i>Commercial or Public Use Area (sq. ft.)</i>	<i>FAR</i>	<i>Status</i>
Retail / Office						
Four commercial shell buildings	1812,1828 Divanian	CH	2.84	33,220	0.27	In review
Sutter Gould medical office building	3006, 3124 W. Christoffersen Pkwy.	CH	6.92	34,000	0.11	In review
3-story hotel	3501 W. Monte Vista Ave.	PD233	2.5	52,896	0.49	Approved 01/08; No building permit applied for yet.
Two commercial buildings	1192 Lander Ave., 912 F St.	CH	1.12	19,332	0.40	Approved 03/07; No building permits on file.
Retail building	1780 Lander Ave.	CC	0.15	4,600	0.70	Approved 07/08; No building permit applied for yet.
Banquet hall	2050 Divanian Dr.	CH	1.96	12,100	0.14	Approved 5/08, No BP applied for yet.
Retail building	3300 Countryside Dr.	CH	4.99	48,703	0.22	Approved 04/08, Tenant backed out; no BP applied for yet.
Monte Vista Crossings shopping center expansion	2701 Countryside Dr.	CC	19.29	209,155	0.25	Approved 9/08; No BP applied for yet.
Neighborhood shopping center	2218 W. Main St.	CC	8.94	101,350	0.26	Approved 12/08, No BP applied for yet.
Office building	531 E Olive Ave.	OR	0.32	3,560	0.26	Approved 03/08; In plan review
Rebuild of a neighborhood store	700 W. Main St.	CC	0.14	1,500	0.25	Approved 6/08, Demo Complete, plans in plan check
CVS pharmacy	3100 Geer Rd.	CC	1.9	13,225	0.16	Approved 5/08, BP in plan check

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Figure 4-4: Current Development Projects



Source: Development projects data, City of Turlock and Dyett and Bhatia, 2009;
Map base data, City of Turlock, 2008.

4.3 GROWTH PROJECTIONS AND LAND DEMAND

The assumptions and methodology behind generating the land demand estimates are discussed in Chapter 2: Demographic, Economic and Fiscal Conditions. The assumptions and final land demand projections for each land use are repeated here in Table 4-4 to facilitate comparing demand to supply. As described in Chapter 2, the purpose of this analysis is to verify the appropriateness of the Planning Area and the existing General Plan land use designations for current estimates of future growth. The land demand values generated by this analysis are not necessarily representative of the exact amount of future land that will be developed; rather, they are intended to analyze whether the city has allocated an overall adequate amount of land to plan within, based upon historical trends and the current development pattern.

Residential

To calculate the number of housing units needed for the new residential population, additional units are added to the number of households based on the vacancy rate. In other words, assuming a vacancy rate of 3.6 percent, roughly 12,200 new housing units are required for 11,800 new households. Then, unit type allocation and residential density assumptions are applied in order to estimate the amount of acreage required for the given number of housing units needed. Table 4-4 lists the density and unit allocation assumptions used in this analysis. Again, the breakdown of single family versus multifamily development, as well as the density assumptions, are based upon recent development trends. Actual future development may be different based on land use policies developed in the new General Plan. However, based on these assumptions, at the low end, 2,246 acres are needed to support 12,250 new housing units; at the high end, 3,346 acres are needed to support 18,251 new housing units.

Table 4-4: Land Use Density Assumptions

<i>Assumption</i>	<i>Value</i>
Persons per Household	3.05
Total Households in 2030	
Low Range	34,954
High Range	40,747
Households Added 2008-2030	
Low Range	11,815
High Range	17,604
Unit Type Allocation ¹	
Single-Family	75%
Multifamily ²	25%
Units per Acre	
Single-Family	6.0
Multifamily/Attached	20.0
F.A.R. per Net Acre ³	
Retail	0.25
Office/R&D	0.35
Warehouse/Industrial	0.35
Net-to-Gross Ratio ⁴	0.75
Building Vacancy Rate	
Residential ⁵	3.6%
Retail	4.0%
Office/R&D	8.0%
Warehouse/Industrial	8.0%

1. Based on assumptions by EPS and Dyett & Bhatia.
2. Multifamily includes single family attached housing.
3. Floor Area Ratio
4. Refers to the total development footprint relative to the public infrastructure, such as roads, sidewalks, utilities, and other public r.o.w. (excluding parks and schools).
5. Based on current vacancy rate provided by Department Of Finance as of 2008.

Sources: EPS and Dyett & Bhatia.

Park and Open Space

Important to the discussion of demand for residential space is the corresponding space needed for new parks. The city’s current parks ratio is 4.5 acres per 1,000 residents. (More detail on parks conditions and standards is found in Chapter 6, Section 1.) Assuming the low growth scenario of adding 36,000 people by 2030, 162 acres of parkland would be needed. Assuming the high growth scenario of 53,700 people added, 242 acres of parkland would be needed.

Table 4-5 shows the residential land demand for both population projection scenarios.

Non-Residential

To calculate land demanded for non-residential uses, employment projections were converted into demand for building space based on assumptions about square footage requirements for different types of employees. Demand for retail space combines employee space needs with future consumer retail spending generated by new residents and workers in Turlock. The results of this analysis are summarized in the Table 4-6.

Total Land Demand

Combining all land uses, future population and employment in Turlock will generate demand for between around 3,000 acres and 4,900 acres of land. These estimates can be compared to the total acreage of land that is currently available in Turlock—and designated for specific land uses under the current General Plan—in order to determine whether the Planning Area as currently defined is the appropriate size, as well as how much more land in the Planning Area needs to be allocated for future growth. Table 4-7 summarizes the land demand from all land use categories.

Table 4-5 Residential Land Demand for Added Households (2008-2030)

Residential Development	Lower Range Scenario ¹			Higher Range Scenario ²		
	%	Units ³	Acreage ⁴	%	Units ³	Acreage ⁴
Single-Family Housing	75%	9,187	2,042	75%	13,688	3,042
Multifamily Housing	25%	3,062	204	25%	4,563	304
Subtotal Residential		12,250	2,246		18,251	3,346
Parks and Open Space			162			242
Total			2,408			3,588

1. Assumes the City experiences a slower population growth.
2. Assumes the City experiences a faster population growth.
3. Total residential units are based on the total number of households and vacancy rate of 3.6%.
4. Total acreage for residential land uses are based on total units per acre (6 du/ac for single family and 20 du/ac for multi-family) and net-to-gross ratio of 75%.

Source: EPS

Table 4-6 Non-Residential Land Demand for Added Businesses (2008-2030)

Non-Residential (Square Feet)	Lower Range Scenario ¹		Higher Range Scenario ²	
	Units or Sq. Ft.	Acreage	Units or Sq. Ft.	Acreage
Retail	930,400	114	2,854,618	350
Office	2,023,296	177	4,016,638	351
Industrial	2,997,782	262	6,458,967	565
Total Non-Residential	5,951,478	553	13,330,223	1,266

1. Assumes the City experiences a slower employment growth.
2. Assumes the City experiences a faster employment growth.
3. Square footage based on projections of employment and retail expenditures.
4. Total acreage is based on total units or square feet per acre and net-to-gross ratio.

Source: EPS

Table 4-7: Turlock Development Demand (2008-2030)

Item	Lower Range Scenario ¹		Higher Range Scenario ²	
	Units or Sq. Ft.	Acreage	Units or Sq. Ft.	Acreage
Residential				
Single-Family Housing	9,187	2,042	13,688	3,042
Multifamily Housing	3,062	204	4,563	304
Parks and Open Space		162		242
Subtotal Residential	12,250	2,408	18,251	3,588
Non-Residential				
Retail	930,400	114	2,854,618	350
Office	2,023,296	177	4,016,638	351
Industrial	2,997,782	262	6,458,967	565
Subtotal Non-Residential	5,951,478	553	13,330,223	1,266
Total Acres (All Land Uses)		2,961		4,854

1. Assumes the City experiences a slower employment growth.
2. Assumes the City experiences a faster employment growth.
3. Residential units are based on the projected number of households. Nonresidential square footage is based on projected employment growth and future retail expenditures.
4. Total acreage is based on total units or square feet per acre and net-to-gross ratio.

Source: EPS

4.4 EXISTING LAND SUPPLY AND DEVELOPMENT CAPACITY

The city has a large number of vacant sites within its boundaries; in addition to those, there is an inventory of underutilized parcels that may be candidates for change or redevelopment over the next 20 years. Finally, within Turlock’s Planning Boundary but outside the city limits, there is a large amount of agricultural land that may eventually be appropriate for development as urban uses. By identifying and aggregating these three sources of available land, the total amount of capacity that Turlock has for future development can be determined. Figure 4-5 maps the vacant and nearly-vacant parcels that the City has identified, color-coded by their existing land use.

Vacant Opportunity Sites

Vacant sites were identified by multiple field surveys and the use of aerial photography. Overall, the city contains roughly 8,000 acres of vacant or nearly vacant land that constitute opportunity sites for future development. This includes land designated in the current General Plan for urban uses as well as that designated as “Urban Reserve.” Around half (4,030 acres) of the opportunity sites are designated as Urban Reserve, located primarily in the northwest, south, and southwest parts of the Planning Area. Thirty percent of the acreage (2,420 acres) are within city limits, and 20 percent (1,563 acres) are outside city limits but were designated for growth under the current General Plan. This subset of parcels includes the southeast quadrant of the Planning Area, which currently consists of agriculture and very low density residences. Table 4-8 shows the breakdown of opportunity sites within the planning area by their existing land use.

Table 4-8 Current Land Use of Opportunity Sites

Land Use	In City Limits		In Planning Area, Designated for Growth in Current GP		In Planning Area, Designated as Urban Reserve in Current GP		Percent of Total Acreage
	Acres	Percent in Category	Acres	Percent in Category	Acres	Percent in Category	
Agriculture	1,266	52%	1,048	67%	3,754	93%	76%
Vacant	846	35%	88	6%	28	1%	12%
Residential	163	7%	297	19%	232	6%	9%
Industrial	81	3%	98	6%	16	0.4%	2%
Commercial, Office, and Mixed Use	64	3%	33	2%	0	0%	1%
Total	2,420	30%	1,563	20%	4,030	50%	100%

Approximately 2,420 acres of vacant and nearly vacant parcels were identified within the city limits, ranging in size from 0.5 to 88 acres. Many vacant parcels are adjacent to each other, sometimes creating larger opportunity sites of several hundred acres. Most of the large parcels are located in the WISP area or close to the freeway, whereas small parcels tend to be infill sites in existing built-up areas. However, even many of the parcels in otherwise densely developed parts of the city are quite large (20 acres or more), providing ample opportunities for sizable infill housing or commercial projects. As shown in Table 4-8, over 80 percent of all opportunity sites identified are either currently vacant or used for agriculture.

Underutilized Parcels

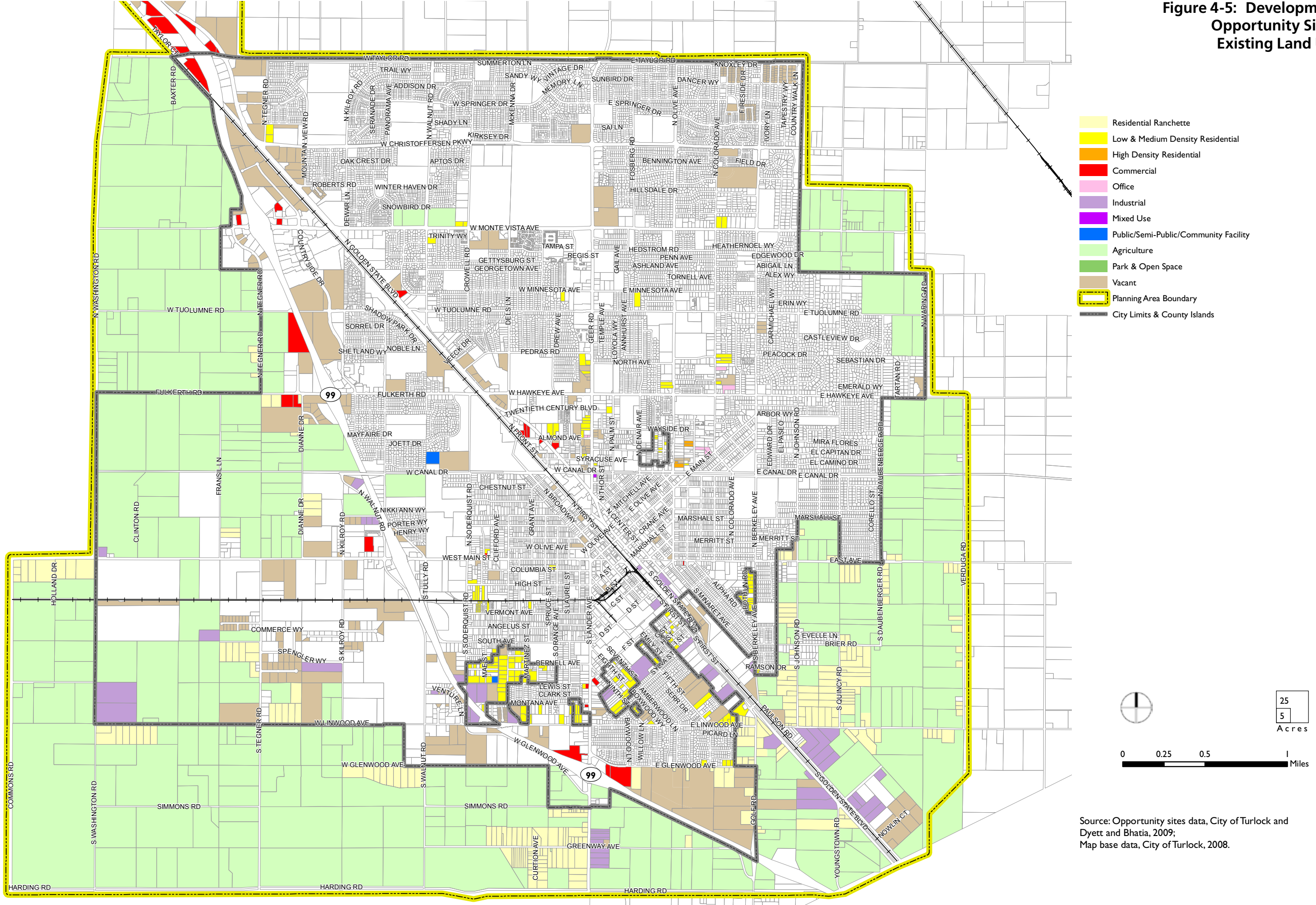
A ratio of assessed improvements value to land value (AV ratio) was used to identify underutilized land. Parcels with an AV ratio of 0.75 or less, where the value of the building is less than three-quarters of the value of the land, were assumed to be potential sites where new development might occur.

Most of the sites identified through this methodology are not likely to undergo intensification or redevelopment over the next 20 years, because owners tend to keep older buildings rather than redevelop them. In order to account for the possibility that some underutilized parcels may be redeveloped at higher intensities, 15 percent of the total acreage of sites identified through the AV ratio analysis is added to the acreage of vacant sites.

A total of 1,109 underutilized parcels were identified within the city limits using the AV ratio methodology, comprising 616 acres. The individual parcels range in size from less than a tenth of an acre to nearly 80 acres. Approximately 220 acres of the 616 are designated for Industrial use under the current General Plan; 140 are designated for Community and Heavy Commercial use. The remaining acreage is split amongst other General Plan designations. However, assuming that only 15 percent of the total acreage redevelops over the next 20 years, then only 92 total acres are added to the inventory of opportunity sites.

Underutilized parcels are also generally clustered in specific areas. Most of the underutilized parcels are found in Downtown, along Golden State Boulevard, and along the Geer and Lander corridors.

Figure 4-5: Development Opportunity Sites: Existing Land Use



Location of Vacant and Underutilized Sites: Areas for Growth and Change

The vacant and underutilized sites in the Turlock Planning Area tend to be clustered in distinct areas. While some small sites are scattered throughout the city, the majority are located in distinct areas that will be appropriate for different types of development, depending on their land use designation, parcel size, and other factors. Figure 4-6 shows the opportunity sites color-coded according to the land uses currently assigned to them by the existing General Plan, and Figure 4-7 diagrams how the opportunity sites are grouped into general areas. These are areas that are likely to grow or change over the next 20 years, given the number of vacant and underutilized sites.

Inside City Limits

Downtown

Downtown Turlock can be divided into two areas: that which has Main Street as a spine and follows the diagonal street pattern, and the numbered and lettered street grid just to the south, between the railroad tracks and Lander Avenue. Both areas have a significant clustering of small vacant and underutilized sites. Locally-owned commercial businesses and light industrial sites, many relating to the automotive industry, are prevalent in this area, and new development could have similar uses.

Golden State Boulevard

Golden State Boulevard, the original state highway through the Central Valley, parallels the railroad tracks diagonally through the planning area. In some places, the adjacent railroad impedes crossing the roadway. The road occupies a substantial right-of-way and sees considerable truck traffic. Many vacant and underutilized sites along Golden State are quite large and designated for heavy commercial use.

Geer Road

Geer Road stretches from Downtown to the northern border of the Planning Area, and it forms the eastern boundary of CSUS. A range of vacant parcels are located on both sides of the road, providing opportunity for development of new community commercial and office space.

Lander Avenue

Lander Avenue starts Downtown and runs south to the southern boundary of the Planning Area. Between Downtown and SR 99, vacant sites along Lander Avenue are designated for heavy commercial and industrial uses, in character with the industrial concentration between Lander Avenue and Golden State Boulevard (where Foster Farms and other large users are located).

CSUS

Numerous large vacant parcels exist at the corners of the CSUS campus, and one is already under development as a small commercial site. Sites proximate to the university could be developed as student or faculty housing, administrative space, or campus-serving retail.

Northwest Triangle Retail Area

Much of the retail area of the Northwest Triangle Specific Plan, around the Monte Vista interchange, has been developed as Monte Vista Crossings. This retail node is anchored to the south by the Countryside shopping area at the Fulkerth interchange. There is ample additional vacant retail space still in the Monte Vista Crossings area, west of the Monte Vista Interchange, and south along Countryside Drive. This area may continue to be built out as a regional retail destination for Turlock residents and surrounding communities.

Westside Industrial Specific Plan Area (WISP)

The largest collection of opportunity sites within the Turlock city limits is in the WISP. Of the 2,000 acres in the Specific Plan area, only around 450 have been developed. Most of the existing development in the WISP has occurred in the industrial area, along the east-west railroad tracks and east of Tegner Road. The potential development parcels are primarily farmland, with some vacant sites and underutilized industrial areas. Opportunity sites in the area are designated for Industrial, Industrial Business Park, and Commercial Office uses. It is expected that the majority of development in the WISP will be heavy and light industrial, but the General Plan designations allow for some office and retail as well.

Medical Office Area

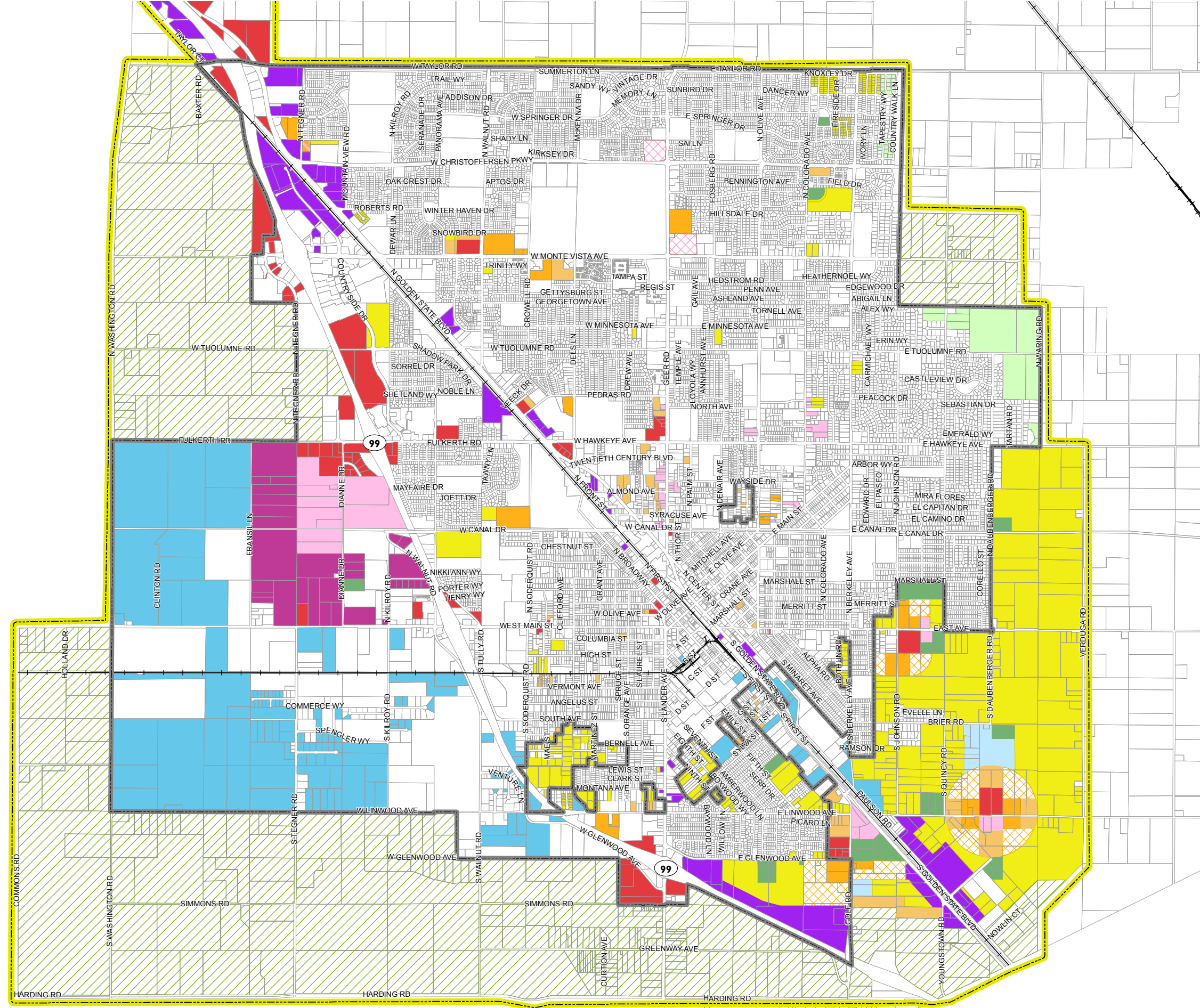
There are numerous small opportunity sites south and east of the Emanuel Medical Center, and some medical office development has taken place in this area recently. These additional parcels provide more opportunity for development related to the hospital to occur.

Outside City Limits

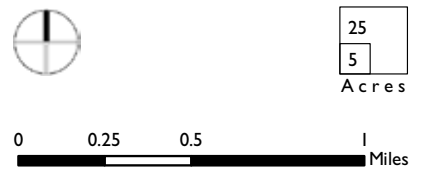
Southeast Area

The southeast quadrant of the Planning Area, bounded by Hawkeye Avenue to the north and SR 99 and Lander Avenue to the west, is another area identified for potential growth and change. The southeast area is already designated for urban land uses (primarily low density residential) in the existing General Plan. A few neighborhood commercial areas, and heavy commercial areas where appropriate, are also designated. Because the General Plan designations for the southeast specify land use and density, this area has been included in the analysis of capacity for future development.

Figure 4-6: Development Opportunity Sites: Current General Plan Land Use Designation

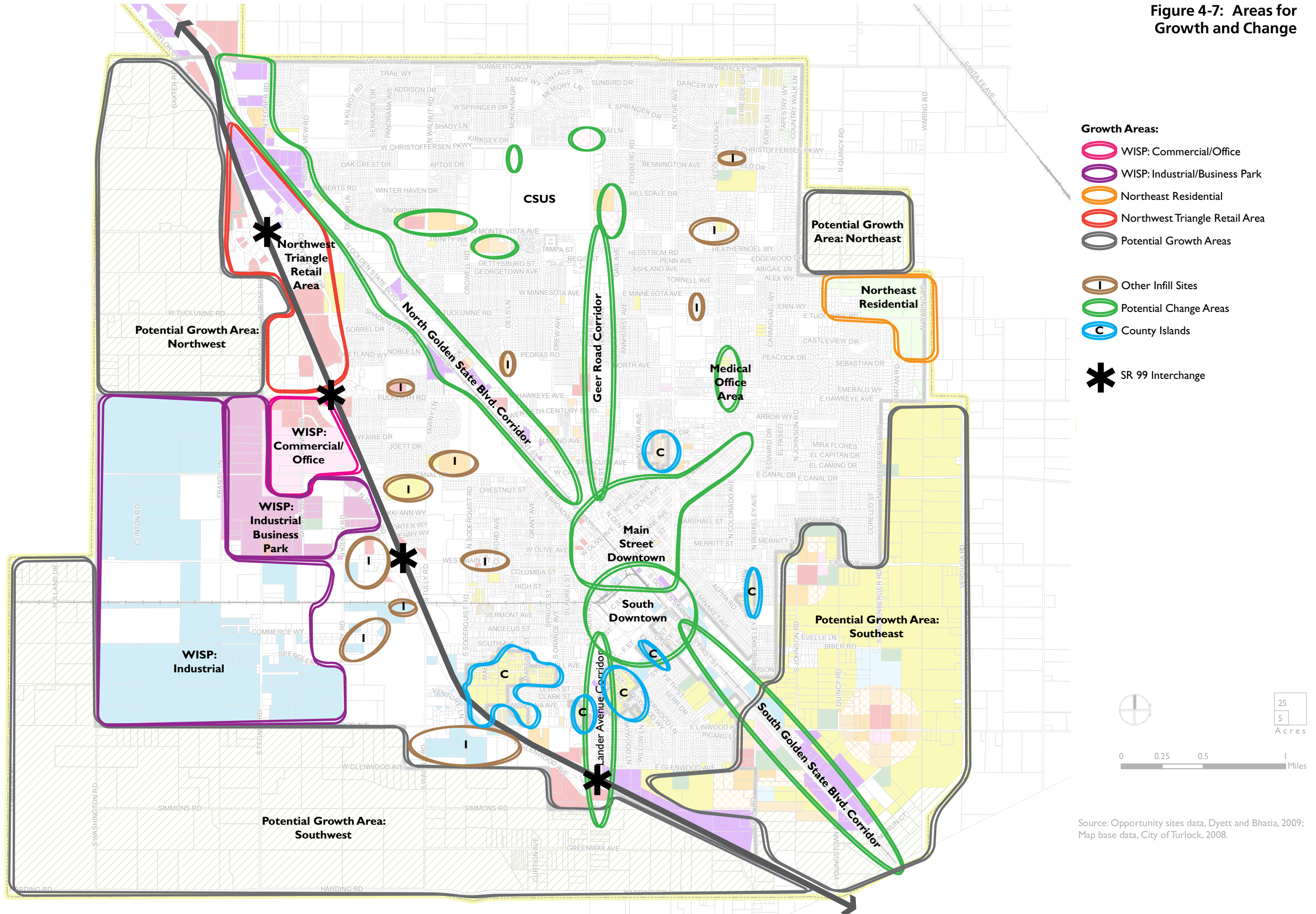


- Very Low Density Residential
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Low & Medium Density Residential
- Office and High Density Residential
- High Density Residential, Heavy Commercial, and Industrial
- Community Commercial and Office
- Community Commercial
- Office
- Heavy Commercial
- Business Park
- Industrial
- Park
- Public/Institutional
- Urban Reserve
- Planning Area Boundary
- City Limits & County Islands



Source: Opportunity sites data, Dyett and Bhatia, 2009; Map base data, City of Turlock, 2008.

Figure 4-7: Areas for Growth and Change



Source: Opportunity sites data, Dyett and Bhatia, 2009; Map base data, City of Turlock, 2008.

Urban Reserve (Northwest, Southwest, Northeast)

The city has identified all of the agricultural land in the northwest, southwest, and northeast quadrants of the Planning Area (outside the city limits) as potential areas for growth. All of this land is currently designated as Urban Reserve in the existing General Plan, meaning that additional environmental analysis, master planning, and annexation would be required before these areas could be developed with urban uses. Land designated as Urban Reserve does not have any density or land use type associated with it; therefore, when calculating the capacity for new housing or businesses, these areas are not included. However, the General Plan Update Alternatives Analysis will examine the possibility of residential and/or non-residential development in all of these areas, and evaluate the opportunities and constraints of each in order to best direct future growth.

County Islands

The County Islands—areas of unincorporated land that are surrounded by incorporated Turlock—are also nodes of vacant underutilized parcels. Much of the land in the County Islands is developed as single family homes on large lots; the homes tend to be old and often not recently improved. The City and County are currently working out a strategy to incorporate the County Islands into Turlock, through a property tax-sharing scheme that will fund necessary improvements, and establishing minimum standards agreements for County upgrades. Redevelopment of available land within the County Islands will be more likely to proceed when infrastructure in these areas is improved.

Development Capacity Analysis

To calculate the total build-out capacity of the opportunity sites, the acreage in each General Plan land use category was multiplied by its allowable density (in dwelling units per acre for residential uses and in FAR for non-residential uses). Because residential land uses allow a range of densities, the average was used. Finally, a net-to-gross ratio of 0.75 was applied in order to net out land necessary for roads and other infrastructure. As summarized in Table 4-9, the opportunity sites, plus 15 percent of underutilized parcel acreage, could support a net total of 8,494 dwelling units and 22.6 million square feet of non-residential development. The total gross developable acres, 3,880, does not include areas designated as Urban Reserve. Table 4-10 shows the detailed calculation of development capacity by land use category.

This analysis calculates development capacity of opportunity sites for which General Plan designations that allow development have already been assigned. Public/Semi-Public, Park, and Urban Reserve land use designations do not have allowable densities associated with them, so no dwelling units or square footage of non-residential space are assigned to those parcels. Notably, the large areas designated as Urban Reserve to in the northwest and southwest are not included in this capacity analysis table.

Table 4-9 Summary of Opportunity Sites' Development Capacity as Currently Designated

<i>Land Use</i>	<i>Total Acres</i>	<i>Avg. Density (du/ac or FAR)</i>	<i>Supportable Dwelling Units</i>	<i>Supportable Square Feet</i>
Low Density Residential	1,425	6 du/ac	6,860	
Medium and High Density Residential	302	20 du/ac	4,465	
Office	252	0.35 FAR		3,804,722
Retail/Commercial	627	0.25 FAR		6,939,238
Industrial	1,273	0.35 FAR		19,406,530
Total Gross Developable Acres	3,880		11,325	30,150,489
Total Net (assuming 75% efficiency)	2,910		8,494	22,612,867

Table 4-10 Development Capacity of Vacant and Underutilized Opportunity Sites

General Plan Designation ¹	Density (units/acre)		FAR (net)	Vacant or Under- utilized Acres	Additional Redev. Potential ³	Total Acreage	Dwelling Units			Square Feet	
	Low	High					Low	High	Average		
VLDR	Very Low Density Residential	0.20	3.00		118	3	122	24	365	194	
LDR	Low Density Residential	3.00	7.00		1,231	15	1,246	3,737	8,721	6,229	
LDR_MDR	Low and Medium Density Residential	5.00	10.00		112	4	116	582	1,163	872	
MDR	Medium Density Residential	7.00	15.00		120	6	126	884	1,895	1,390	
HDR	High Density Residential	15.00	30.00		115	2	116	1,745	3,490	2,617	
O_HDR	Office and High Density Residential	15.00	30.00	0.35	2	0	2	27	54	41	27,574
HDR_HC_I	High Density Residential, Highway Commercial, and Industrial	15.00	30.00	0.35	0	0	0	3	7	5	3,490
CC	Community Commercial			0.25	275	11	286				3,109,135
CC_O	Community Commercial and Office			0.25	19	0	19				207,409
HC	Highway Commercial			0.25	298	10	308				3,349,470
O	Office			0.35	166	2	168				2,559,935
I	Industrial			0.35	1,092	33	1,125				17,151,938
BP ²	Business Park			0.35	246	1	246				3,757,653
PARK	Park				91	0	91				
PUB	Public/Institutional				42	5	47				
UR	Urban Reserve				4,015	0	4,015				
<i>Subtotal Low Density Residential (VLDR, LDR)</i>					1,405	20	1,425	4,053	9,667	6,860	
<i>Subtotal Medium and High Density Residential (MDR, HDR)</i>					292	9	302	2,935	5,996	4,465	
<i>Subtotal Office</i>					250	3	252				3,804,722
<i>Subtotal Retail/Commercial</i>					606	21	627				6,939,238
<i>Subtotal Industrial</i>					1,239	34	1,273				19,406,530
Total Developable Acreage							3,880 ac				
Total GROSS Development Potential (dwelling units; acres)								6,987	15,662	11,325 du	30,150,489 sf
Total NET Development Potential, assuming 75% efficiency (dwelling units; square feet)								5,240	11,747	8,494 du	22,612,867 sf

Notes:

1. Where more than one General Plan Designation applies, acreage is split equally between designations.
2. Assumes BP is 60% industrial, 30% office, 10% retail.

3. 616 acres of additional underutilized parcels were identified within city limits using the AV ratio methodology. Assumes 15% of this acreage has the potential to redevelop over the next 20 years; numbers in column represent 15 percent of acreage identified in each land use category.

4.5 DEMAND VERSUS SUPPLY

Table 4-11 summarizes the comparison of available developable land to acres demanded under both the low and high growth projections. Again, it is important to emphasize that the purpose of this exercise is not to predict precisely the exact type and amount of development that will occur over the next 20 years. Rather, the analysis aims to evaluate the appropriateness of the Planning Area as currently defined, and the existing General Plan designations, for the future development that the growth projections deem likely to occur. The actual form, intensity, and location of new growth will be considered in depth throughout the General Plan update process and ultimately determined by the policies written for the new General Plan.

Under the low growth scenario, which would add approximately 30,000 residents, there is demand for approximately 1,090 acres of land for residential development, all of which is needed for low-density development and parks. Enough land designated for medium and high density already exists to satisfy demand. Under the low growth scenario, supply of land for office development is just short of projected demand. Land designated for commercial and industrial land exceeds supply by nearly 400 and 700 acres, respectively. Altogether, the low growth scenario would require around 1,110 acres of additional land to be designated for development, almost all of which would be for low-density residential use.

Under the high growth scenario, which projects approximately 50,000 new residents, the city would need to designate 2,266 acres for residential development. Most (1,951 acres) is needed for low density development, but an additional 73 acres are needed for medium and high density. The remainder (242 acres) is for parks and open space. The high growth scenario results in a remaining need for 160 acres of land dedicated to office development. Similar to the low growth scenario, there is more than enough land designated for commercial and industrial use already in the Planning Area.

In summary, the projected population and employment growth in Turlock over the next 20 years will generate demand for between around 1,100 and 2,300 acres of residential land and up to 200 acres of office land. The city does not need to designate any more land for either retail/commercial or industrial development.

Table 4-11 Summary of Land Supply versus Demand

	Gross Acres	Net Acres	Net Acres Demanded		Remainder Needed	
	Available	Available (1)	Low	High	Low	High
Residential						
Low Density	1,425	1,069	2,042	3,042	973	1,973
Medium and High Density	302	226	204	304	(22)	78
Total (incl. Parks)	1,727	1,295	2,408	3,588	1,113	2,293
Office	252	189	177	351	(12)	162
Retail/Commercial	627	471	114	350	(357)	(121)
Industrial	1,273	955	262	565	(693)	(390)
Total	3,880	2,910	2,961	4,854	1,113	2,454

1. Assumes a net-to-gross ratio of 0.75.

