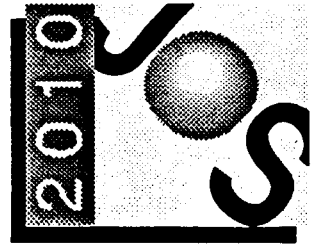


Chapter 13
Population, Employment,
and Housing



Chapter 13. Population, Employment, and Housing

INTRODUCTION

This chapter provides a socioeconomic profile of the JOS service area. This profile serves as the basis for analyzing the direct effects on population, employment, and housing that would result from implementation of the 2010 Plan. Although analysis of socioeconomic impacts is not required by CEQA, the effects are discussed to respond to community concerns and to provide additional information on potential impacts. Indirect or secondary effects are discussed in Chapter 17, "Cumulative, Growth-Inducing, and Growth-Related Impacts".

The analysis presented in this chapter is based on information provided by the U.S. Census, SCAG, California Department of Finance (DOF), and the Economic Development Department (EDD). Additional information regarding the JOS service area's future population and employment was developed by the Districts' Planning and Property Management Section.

As described in Chapter 1, "Introduction", this EIR provides project-specific CEQA compliance for full secondary treatment and solids processing at the JWPCP. Other elements of the 2010 Plan are analyzed on a program level when site-specific information is unavailable or locations of sites are not identified.

SETTING

This section examines the growth and characteristics of the population, housing, and employment in the JOS service area and areas within 0.5 mile (an area used for population, housing, and employment modeling) of the JWPCP and the Los Coyotes, San Jose Creek, and Whittier Narrows WRPs. These study areas are based on an aggregate of census tracts, with data at the split census tract level proportioned to area size.

Regional Setting

Population

The population of Los Angeles County more than doubled between 1950 and 1990. The county's population of approximately 4.2 million in 1950 grew by 1990 to approximately

8.9 million, an increase of 4.7 million residents, or 1.9% per year. From 1980 to 1990, the county grew by 1.4 million residents or 1.7% per year. According to DOF data, approximately two-thirds of this growth was attributable to natural increases (births minus deaths) and the remaining one-third to net migration (domestic and international) (California Department of Finance 1991, 1994). However, as Southern California's economy slipped into a recession during the late 1980s and early 1990s, net in-migration dropped significantly. Between 1990-1993, more people left Los Angeles County than entered, resulting in a net out-migration of more than 100,000 residents. Despite this out-migration, the population of the county continued to grow.

The JOS service area includes approximately one-fifth of the county land area and one-half of the 1990 total population. The population in the JOS service area increased from approximately 3.6 million in 1980 to 4.5 million in 1990, an increase of 2.3% per year growth. Table 13-1 presents the population growth and characteristics of the county; the JOS service area; and the area within a 0.5-mile radius of the JWPCP and the Los Coyotes, San Jose Creek, and Whittier Narrows WRPs. The areas immediately surrounding the JWPCP and the three WRPs are discussed below.

Table 13-1. Population Growth and Characteristics (1990)

	Los Angeles County	JOS Service Area	Study Area ^a			
			JWPCP	Los Coyotes WRP	San Jose Creek WRP	Whittier Narrows WRP
Population and Growth						
Total 1990 population	8,863,200	4,456,300	4,807	3,780	2,278	2,430
1980-1990 increase	1,385,700	900,000	255	273	80	253
Percentage growth	18.5	21.2	5.6	7.8	3.6	11.6
Percentage ethnic and racial distribution^b						
White	41.0	36.2	32.2	57.7	28.1	11.4
Hispanic	37.3	40.2	32.6	16.0	58.2	76.9
Black	10.7	10.8	10.5	7.8	0.5	0.2
Asian/other	11.0	12.8	24.6	18.6	13.2	11.4
Percentage age distribution						
4 and under	8.2	8.6	6.3	6.9	7.2	8.9
5 - 17	18.0	19.5	18.8	18.3	20.5	25.8
18 - 64	64.1	62.7	63.6	64.9	64.8	59.7
65 and over	9.7	9.2	11.3	9.9	7.5	5.6

^a Area within a 0.5-mile radius of facility.

^b White, black, and Asian/other groups represent non-Hispanic populations.

Source: U.S. Census 1990.

Joint Outfall System Service Area

In the JOS service area, 13 drainage areas drain to the six JOS treatment plants (Figure 2-3). With over 2.2 million residents, Drainage Area 11 has the largest population, representing half (49.9%) the total JOS service area population in 1990 (Table 2-1). Drainage Area 11 is a tributary of the JWPCP and is located in Carson. Drainage Area 2, which includes a large portion of the eastern San Gabriel Valley, has the second largest population, totaling 667,153 in 1990. The San Jose Creek WRP is the primary treatment plant for Drainage Area 2.

Table 2-1 presents the population forecast (1990-2010) by drainage area, JOS service area, and county. The population forecast was derived from the 1994 SCAG RCP. The RCP forecasts, which were developed through the SCAG subregional planning process, reflect local jurisdictions' general plans and forecasts. The growth management component of the RCP was adopted by the SCAG Regional Council in June 1994. SCAG forecasts were developed for the 13 subregions and subsequently disaggregated to the census tract level and then further divided into smaller portions to more accurately determine the attributable population. The Districts used a geographic information system (GIS) to develop the 1990 and 2010 forecast for the 13 drainage areas and the JOS service area.

According to the SCAG RCP, Los Angeles County's population will grow from approximately 8.9 million in 1990 to 11.3 million in 2010, an increase of 2.5 million or 27.7%. During this 20-year period, 30.4% of the countywide growth will occur in the JOS service area compared with 60% of the countywide growth during 1980-1990. The JOS service area is anticipated to grow by 16.8%, and employment is forecast to grow by 23.6% from 1990 to 2010. The fastest growing area in the county is expected to be north Los Angeles County, which is forecast to grow by 239.6% over the 20-year period.

Within the JOS service area, Drainage Area 11 is projected to have the largest portion of the total JOS population growth (41.5%), although its percentage increase is one of the lowest (13.9%). The other two high-growth areas (Drainage Areas 1 and 10) are tributary to the Pomona and Long Beach WRPs and are forecast to have population increases of 24%. Of that growth, 75% is because of births and 25% is because of in-migration (26% of which is undocumented). However, this growth forecast does not indicate that expansions are required at these facilities because current treatment capacity may accommodate this growth or flows may be diverted to other plants. The other large areas of growth are Drainage Areas 2 (19.3% growth by 2010) and 3 (10% growth by 2010), which are tributaries to the San Jose Creek WRP or Whittier Narrows WRP. Finally, Drainage Area 6 is projected to have the largest percentage of growth (67.9%). This is, however, a relatively small amount of growth, because population growth within this area accounts for only 0.4% of the total JOS growth.

Further discussion of the future population and employment growth as forecast by SCAG is presented in Chapter 17, "Cumulative, Growth-Inducing, and Growth-Related Impacts".

Housing. In 1990, there were more than 1.5 million dwelling units in the JOS service area (Table 13-2). Of these, 64.4% were single-family units and 35.6% were multifamily units. By comparison, the composition of the countywide housing stock was 48.6% single-family and 51.4% multifamily units. As multifamily units increased countywide, vacancy rates also increased from 4.4% in 1980 to 5.5% in 1990. (The vacancy rate is the percentage of unoccupied units in the total available housing stock; the lower the vacancy rate, the more constrained the housing market. Generally, a vacancy rate of 5%-6% indicates a well-functioning and healthy housing market.) Between 1990 and 1993, vacancy rates have increased because of out-migration and recession. The JOS service area vacancy rate of 4.4% indicates a relatively small housing shortage.

Table 13-2. Total Housing (1990)

	Los Angeles County	JOS Service Area	Study Area ^a			
			JWPCP	Los Coyotes WRP	San Jose Creek WRP	Whittier Narrows WRP
Total housing (number of units)	3,163,300	1,512,200	1,518	1,354	656	582
Number of households	2,994,300	1,445,800	1,473	1,301	632	577
Persons per household	2.96	3.08	3.26	2.91	3.60	4.21
Percentage housing type						
Single units	48.6	64.4	67.3	62.8	94.8	75.9
Multiple unit	51.4	35.6	32.7	37.2	5.2	24.1
Percentage vacancy rate	5.5	4.4	3.0	3.2	2.6	1.9
Percentage housing built after 1960	49.3	47.4	74.2	74.6	75.6	52.7

^a Area within a 0.5-mile radius of facility.

Source: U.S. Census 1990.

Between 1980 and 1990, the number of households in the JOS service area increased by 15.2% and population grew by 21.2%. This pattern of growth resulted in an increase in average household size (i.e., persons per household) in the JOS service area of 2.93 in 1980 to 3.08 in 1990. In comparison, the average household size in the county was 2.96 in 1990. The upward swing in household size may be attributable to the slowdown in new housing construction, the rapid growth in population, and a shift in the ethnic and racial composition in the JOS service area.

The existing housing in the JOS service area is relatively old. In 1990, less than one-half (47.4%) of the housing stock in the JOS service area was built after 1960. By comparison, 49.3% of the countywide housing stock was built after 1960.

Economy and Employment. With an estimated gross regional product of approximately \$322 billion, the Southern California region (i.e., the six-county SCAG region, which includes Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties) is considered one of the major centers of economic production in the world. The SCAG region accounted for approximately half the job growth and half the economic activity in the state during 1980-1990.

Employment is one of the major indicators of the region's economic health. In 1990 there were approximately 7.1 million jobs in the SCAG region, of which approximately two-thirds were located in Los Angeles County. Between 1980 and 1990, employment growth in the SCAG region averaged 3% annually, but as a result of the recent economic recession, employment growth declined by 4% per year during both 1991 and 1992.

According to SCAG's 1990 employment estimates, approximately 2.1 million jobs were located in the JOS service area. This represents 45% of the 4.6 million total jobs in Los Angeles County, whereas the JOS service area population represents 50.3% of the total county population. Thus, the 1990 jobs-to-housing ratio for the JOS service area was 1.38 (i.e., 2.1 million jobs/1.5 million housing units = 1.38 jobs for every housing unit in the service area), as compared with 1.46 for the county.

Employment opportunities in the JOS service area are concentrated among three major industrial classifications: service (31.8%), manufacturing (23.4%), and retail trade (15.6%) (Table 13-3). Compared with Los Angeles County, the JOS service area had a higher proportion of manufacturing jobs (23.4% versus 19.1%) and a lower proportion of service jobs (31.8% versus 35.9%).

Joint Water Pollution Control Plant

Population

The JWPCP is located in Carson. As shown in Table 13-1, 4,807 residents lived within 0.5 mile of the JWPCP in 1990. Between 1980 and 1990, the population increased by 5.6%, whereas the population of the JOS service area increased by 21.2%. The JWPCP study area is racially and ethnically diverse. Hispanic and white residents each represent approximately one-third of the total population, Asian/other 24.6%, and black 10.5%. Of the four study areas, the JWPCP had the largest proportion of Asian/other and black residents. The Asian/other proportion was double the proportion in the population of the JOS service area (24.6% versus 12.8%). The 1990 U.S. Census indicates that the population in the vicinity of the JWPCP is generally older than in the JOS service area. The 4-years-and-under age group was smaller in the JWPCP study area than in the JOS service area, and the 65-and-over age group was larger.

Table 13-3. Total Employment

	Los Angeles County	JOS Service Area	Study Area ^a			
			JWPCP	Los Coyotes WRP	San Jose Creek WRP	Whittier Narrows WRP
Total employment	4,615,700	2,064,600	1,497	3,706	1,019 ^c	1,847
Number of jobs at Districts facilities ^b	1,776	1,669	472	16	636 ^c	16
Percentage of total employment by industry						
Agriculture	0.3	0.3	0.1	0.1	0.4	0.1
Mining	0.2	0.3	0.1	0.1	0.0	0.0
Construction	3.9	4.0	8.0	1.9	7.9	4.6
Manufacturing	19.1	23.4	30.3	9.9	6.2	41.0
Utilities	4.9	5.0	2.7	0.9	11.9	0.9
Wholesale trade	7.0	7.8	4.5	3.4	8.9	15.3
Retail trade	15.7	15.6	13.8	43.9	14.5	9.8
FIRE ^d	6.8	5.3	2.9	5.5	3.0	10.3
Service	35.9	31.8	19.8	30.6	21.6	12.9
Government	6.3	6.6	17.2	3.8	25.6	5.0

^a Area within a 0.5-mile radius of facility.

^b Based on number of employees in 1994.

^c Includes 488 employees at the Joint Administration Office.

^d FIRE = finance, insurance, and real estate.

Source: Southern California Association of Governments 1990.

Housing

Based on data from the 1990 U.S. Census, there were 1,518 housing units in the JWPCP study area. Approximately two-thirds of the dwelling units were single-family residences. The vacancy rate for the area was 3.0%, below the JOS service area and Los Angeles County vacancy rates of 4.4% and 5.5%, respectively. In 1990, three-quarters of the study area's housing had been built after 1960, whereas less than half the housing in the JOS service area had been built after 1960.

Employment

According to SCAG's 1990 employment estimates, there were 1,497 jobs in the JWPCP study area. Of these, 472 or 31.5% were at the JWPCP. The manufacturing sector represents 30.3% of all jobs, generating more employment than any other industry in the study area. The second and third leading industries in the study area were the service sector (19.8%), and government jobs (17.2%).

Los Coyotes Water Reclamation Plant

Population

In 1990, 3,780 people resided within a 0.5-mile radius of the Los Coyotes WRP. During 1980-1990, the population increased by 273 (7.8%). Most residents (57.7%) in the Los Coyotes WRP study area were white. This study area had significantly more white residents and fewer Hispanic residents than did the JOS service area. The Asian/other ethnic/racial group was the second largest, representing 18.6% of the population. The Hispanic and black ethnic/racial groups represented 16.0% and 7.8% of the population, respectively.

Housing

According to the 1990 census, there were 1,354 housing units within a 0.5-mile radius of the Los Coyotes WRP study area. Most of these (62.8%) were single-family units. The vacancy rate of the study area was 3.2%, below the average vacancy rates of the JOS service area and the county. Housing in this study area is relatively new; three-quarters of the units were built after 1960.

Employment

In 1990, there were an estimated 3,706 jobs within a 0.5-mile radius of the Los Coyotes WRP. Of this total, 16 jobs, or less than 1% of total jobs, were at the Los Coyotes WRP. Employment in the Los Coyotes WRP study area was concentrated in the retail trade and service industries. Together, these two industries accounted for three-quarters of the total jobs, with retail trade representing 43.9% and service 30.6%. In comparison, only 15.6% of the total JOS service area employment was in retail trade.

San Jose Creek Water Reclamation Plant

Population

The 1990 population within a 0.5-mile radius of the San Jose Creek WRP was 2,278, and population increased only 3.6% during 1980-1990. The Hispanic population is the single largest ethnic/racial group in the San Jose Creek WRP study area, representing 58.2% of the total population. The Hispanic ethnic/racial group represents 40.2% of the JOS service area population. The white population represents 28.1% of the total population of the San Jose Creek WRP study area, Asian/other 13.2%, and black 0.5%.

Housing

Within a 0.5-mile radius of the San Jose Creek WRP there are a total of 656 housing units, less than half the units in the Los Coyotes WRP study area. The most striking difference between the San Jose Creek WRP study area and the other areas is the high concentration of single-family units (94.8%), which contributes to a relatively high household size (3.60 persons per household, compared with 3.08 for the JOS service area). The vacancy rate for the area is presently 2.6%, below the JOS service area and countywide vacancy rates. As in the JWPCP and the Los Coyotes WRP study areas, most of the existing housing was built after 1960.

Employment

In 1990, an estimated 1,019 people were employed within a 0.5-mile radius of the San Jose Creek WRP. Of these, 148 workers were at the water reclamation plant and 488 at the Joint Administrative Office. Other government jobs accounted for the largest portion of employment, 136 jobs (25.6%), and the service sector accounted for 115 jobs (21.7%). Although the government and service sectors provided the most jobs in the San Jose Creek WRP study area, the retail trade and utilities industries together accounted for approximately one-quarter of the total jobs.

Whittier Narrows Water Reclamation Plant

Population

The population within a 0.5-mile radius of the Whittier Narrows WRP in 1990 was 2,430. The population increased by 11.6% during 1980-1990. This increase was slower than that of the JOS service area, but was the fastest among the four study areas. The population of the Whittier Narrows WRP study area is primarily Hispanic, with over three-quarters

of the population in this ethnic/racial group. This proportion of the population represented by the Hispanic group was almost double that of the JOS service area and was the highest among the study areas. The Asian/other and white groups each represent 11.4% and the black group accounts for 0.2% of the Whittier Narrows WRP study area population.

Housing

Within a 0.5-mile radius of the Whittier Narrows WRP are a total of 582 housing units. Single-family units account for approximately three-quarters (75.9%) of the total housing in this study area. The household size was 4.21 in 1990, significantly higher than in the JOS service area and the other study areas. The vacancy rate of 1.9% is well below the JOS service area and countywide vacancy rates. Approximately one-half (52.7%) of the existing housing stock in this study area was built after 1960, which is slightly higher than in the JOS service area. However, among the four study areas, this area had the lowest percentage of housing built after 1960.

Employment

In 1990, the manufacturing, wholesale trade, service, and FIRE sectors accounted for nearly 80% of the total jobs of the study area. Whereas the JWPCP and the San Jose Creek WRP employed 472 and 148 workers, respectively, the Whittier Narrows and Los Coyotes WRPs each employed only 16 workers in 1994.

IMPACTS AND MITIGATION MEASURES OF THE 2010 PLAN ALTERNATIVES

Methodology and Assumptions for Impact Analysis

The socioeconomic impact analysis is based on future employment (construction and operation) generated from the implementation of the JOS 2010 Plan relative to the census tract level employment forecast developed by SCAG under its RCP (Southern California Association of Governments 1994b). As a regional planning agency, SCAG is responsible for developing the forecasts, programs, measures, and strategies portions of the South Coast AQMP, pursuant to California Health and Safety Code Section 40460(b) and (c). In addition, SCAG is responsible under the federal Clean Air Act for determining conformity of projects, plans, and programs to the AQMP, pursuant to 42 USC 7506. SCAG's RCP forecast anticipates a total population for the JOS service area of approximately 5.2 million people and total employment of approximately 2.58 million jobs by 2010.

For the purposes of this EIR, it is assumed that the future employment generated by implementation of the JOS 2010 Plan at JWPCP and the Los Coyotes, San Jose Creek, and Whittier Narrows WRPs will be the same under Alternative 1-4. Under the No-Project Alternative, employment at the JWPCP and the three WRPs would remain at existing levels.

Criteria for Determining Significance

Section 15382 of the State CEQA Guidelines defines a "significant" impact as one that includes a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project. The guidelines further state that economic or social changes by themselves are not considered to be significant effects. However, social or economic changes related to physical changes "may be considered in determining whether the physical change is significant".

In accordance with these guidelines, a project would have potential significant impacts if it would:

- displace a large number of people;
- result in growth beyond that anticipated in the SCAG RCP and the South Coast AQMP; or
- substantially alter the location, distribution, density, or growth rate of the human population of the area.

Comparison of Alternatives

Table 13-5 at the end of this chapter shows that the impacts associated with Alternatives 2, 3, and 4 are similar to those associated with Alternative 1, with some variation. This variation is described below for each alternative.

Alternative 1: Upgrade JWPCP/Expand Los Coyotes WRP/San Jose Creek WRP

Construction Impacts

Impact: Increase in Construction-Related Jobs during the Construction Period at the JWPCP. As described in Chapter 7, "Transportation", an estimated 255 construction-related jobs would be created at the JWPCP over the 11-year construction period. This impact is considered beneficial.

Mitigation. No mitigation is required.

Impact: Increase in Construction-Related Jobs Resulting from Expansion of the Los Coyotes and San Jose Creek WRPs. As at the JWPCP, the construction of new facilities and modification of existing facilities to increase capacity at the Los Coyotes and San Jose Creek WRPs would generate construction-related jobs, although to a lesser degree. This impact is considered beneficial.

Mitigation. No mitigation is required.

Impacts of Treatment Plant Operations

Impact: Addition of Approximately 22 Permanent Operating Jobs Resulting from Expansion of the JWPCP. The operation of the expanded JWPCP is expected to generate an additional 22 permanent jobs for secondary treatment facility maintenance, according to Districts staff. As shown in Table 13-4, JWPCP is located in census tract 5436.04. Based on SCAG's RCP forecasts, which have been disaggregated to the census tract level, an additional 288 jobs are forecast for this census tract between 1990 and 2010. Although SCAG's forecasts of population, housing, and employment were approved by the regional council at the subregional, county, and regional levels, the census tract forecasts provide a technical indication of the level of growth for a local area. Therefore, the addition of 22 new jobs would represent approximately 8% of the census tract's forecast employment growth. Household relocation would probably be limited because most of the jobs could be filled by the local labor pool. This impact is considered beneficial.

Mitigation: No mitigation is required.

Table 13-4. SCAG RCP Employment Forecast for 1990 and 2010

Plant	Census Tract	Number of Jobs		
		1990	2010	Growth
JWPCP	5436.04	2,343	2,631	288
San Jose Creek WRP	4083.02	987	1,306	319
Los Coyotes WRP	5545.21	11,517	14,094	2,577
Whittier Narrows WRP	4338.00	7,743	10,933	3,190

Impact: Increase in Permanent Operating Jobs Resulting from Expansion of the Los Coyotes and San Jose Creek WRPs. A minimal number of new operating jobs are anticipated to result from expansion at the Los Coyotes and San Jose Creek WRPs. Similar to the level of employment growth anticipated for the JWPCP, the new jobs at these plants would represent a small portion of the SCAG forecast growth for the census tract. This impact is considered beneficial.

Mitigation. No mitigation is required.

Alternative 2: Upgrade JWPCP/Expand Los Coyotes WRP

Under Alternative 2, impacts at the JWPCP and the Los Coyotes WRP would be the same as under Alternative 1. Sewer construction for this alternative would not affect population, housing, or employment. No additional impacts would occur under this alternative.

Alternative 3: Upgrade JWPCP/Expand Whittier Narrows WRP

Under Alternative 3, impacts at the JWPCP would be the same as under Alternative 1. No impacts would occur at the Los Coyotes or San Jose Creek WRPs. Impacts at the Whittier Narrows WRP are described below.

Impact: Increase in Construction-Related Jobs Resulting from Expansion of the Whittier Narrows WRP. This impact is considered beneficial for reasons described above for the JWPCP and the Los Coyotes and San Jose Creek WRPs under Alternative 1.

Mitigation. No mitigation is required.

Impact: Increase in Permanent Operating Jobs Resulting from Expansion of the Whittier Narrows WRP. This impact is considered beneficial for reasons described above for the JWPCP and the Los Coyotes and San Jose Creek WRPs under Alternative 1.

Mitigation. No mitigation is required.

Alternative 4: Upgrade JWPCP/Expand Los Coyotes WRP/ San Jose Creek WRP/Whittier Narrows WRP

Under Alternative 4, impacts at the JWPCP and Los Coyotes and San Jose Creek WRPs would be the same as under Alternative 1, and impacts at the Whittier Narrows WRP would be the same as under Alternative 3. Sewer construction for this alternative would not affect population, housing, or employment in any of the study areas. No additional impacts would occur under this alternative.

No-Project Alternative

Under the No-Project Alternative, no impacts associated with population, employment, and housing would occur.

Table 13-5. Comparison of Population, Housing, and Employment Impacts by Alternative

Impacts and Mitigation Measures	Alternative 1			Alternative 2			Alternative 3		Alternative 4				
	JWPCP	LC	SJC	JWPCP	LC	Sewers	JWPCP	WN	JWPCP	LC	SJC	WN	Sewers
Construction Impacts													
Impact: Increase in construction-related jobs during the construction period at the JWPCP (B) No mitigation is required	✓			✓			✓		✓				
Impact: Increase in construction-related jobs resulting from expansion of the Los Coyotes and San Jose Creek WRPs (B) No mitigation is required		✓	✓		✓					✓	✓		
Impact: Increase in construction-related jobs resulting from expansion of the Whittier Narrows WRP (B) No mitigation is required								✓				✓	
Impacts of Treatment Plant Operations													
Impact: Addition of approximately 22 permanent operating jobs resulting from expansion of the JWPCP (B) No mitigation is required	✓			✓			✓		✓				
Impact: Increase in permanent operating jobs resulting from expansion of the Los Coyotes and San Jose Creek WRPs (B) No mitigation is required		✓	✓		✓					✓	✓		
Impact: Increase in permanent operating jobs resulting from expansion of the Whittier Narrows WRP (B) No mitigation is required								✓				✓	

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No significant impacts on population, housing, and employment would occur.

B = beneficial.