



# SOCIOECONOMIC ANALYSIS

## 7.1 Introduction

The social setting within which the proposed Project would take place is described in quantitative and qualitative terms. The socioeconomic character of the local area in the vicinity of the Port of Los Angeles (“Port”) and the larger five-county southern California region is described using information regarding employment and earnings, population, and housing resources. Socioeconomic effects of the Project on these same resource areas are discussed qualitatively, including what types of effects are anticipated during construction and operations.

## 7.2 Environmental Setting

This environmental setting section includes existing or baseline conditions and describes attributes of the human and built environment in the vicinity of the Port and within the larger region of southern California.

### 7.2.1 Socioeconomic Topical Areas

Socioeconomics encompasses a number of topical areas including employment and income, population, and housing. Within each of these areas, subtopics include an examination of conditions at different geographical scales that are relevant to the potential impacts associated with implementation of the proposed Project.

#### 7.2.1.1 Employment and Income

Existing conditions with regard to employment and income are described from a number of perspectives. They include:

- Conditions at the regional level (the five counties of southern California)
- The contribution to the regional economy made by international trade

- The importance of the freight movement or logistics sector of the economy (i.e., receiving, processing, storing, and moving goods)
- The role of the Port
- Conditions at the local level (small geographical areas near the Port, including San Pedro, Wilmington, Carson, and Harbor City)

### Southern California

Between 1990 and 2006, total civilian employment in southern California increased by more than 1.28 million jobs (from 7,009,400 jobs to 8,291,300 jobs) at an average annual rate of 1.2 percent. Examination of the information presented in Table 7-1 illustrates the manner in which this growth varied geographically. The most rapid increase in employment over the period (with the addition of over 343,000 jobs) took place in Riverside County where employment grew at an annual average rate of 3.8 percent (69 percent over the 16-year period). San Bernardino County experienced the next highest rate of growth (2.5 percent per year, on average) with an increase of over 242,000 jobs. Orange County experienced the third most rapid growth rate in employment of 1.3 percent annually, resulting in an increase of over 262,000 jobs. Los Angeles County experienced the largest numeric increase in employment of almost 372,000 jobs; however, the growth rate was a more modest 0.6 percent annually.

**Table 7-1. Total Civilian Employment by County (1990-2006)**

Year	County					Southern California
	Los Angeles	Orange	Riverside	San Bernardino	Ventura	
1990	4,259,700	1,306,200	498,300	599,600	345,600	7,009,400
1991	4,101,000	1,247,900	493,800	590,500	338,400	6,771,600
1992	4,006,700	1,241,500	507,600	604,100	339,400	6,699,300
1993	3,908,500	1,236,800	511,600	608,900	341,400	6,607,200
1994	3,898,600	1,257,500	534,000	612,900	350,400	6,653,400
1995	3,938,600	1,254,400	549,900	622,500	351,100	6,716,500
1996	3,967,800	1,280,400	563,100	634,300	349,600	6,795,200
1997	4,117,000	1,328,200	589,600	658,600	353,400	7,046,800
1998	4,246,100	1,385,300	615,900	680,100	364,500	7,291,900
1999	4,309,400	1,422,100	653,600	712,600	375,600	7,473,300
2000	4,424,900	1,428,400	643,900	703,600	374,700	7,575,500
2001	4,483,400	1,453,400	672,000	724,500	380,000	7,713,300
2002	4,447,100	1,456,500	701,800	743,200	384,600	7,733,200
2003	4,440,800	1,484,200	731,500	758,300	389,200	7,804,000
Baseline Year 2004	4,477,900	1,516,400	775,900	788,700	393,800	7,952,700
2005	4,581,100	1,544,800	816,500	816,800	400,900	8,160,100
2006	4,631,600	1,568,300	842,000	842,300	407,100	8,291,300
Change (1990-2006):						
Number	371,900	262,100	343,700	242,700	61,500	1,281,900
Percent	8.73%	20.07%	68.97%	40.48%	17.80%	18.29%
Average Annual Percent	0.60%	1.31%	3.82%	2.46%	1.18%	1.21%

Source: CEDD 2007.

Based on projections prepared by the Southern California Association of Governments (SCAG), employment in southern California will continue to expand, especially in Riverside and San Bernardino counties (Table 7-2). These two counties are expected to experience growth rates far in excess of those for other counties. Of the selected cities in Los Angeles County for which information is presented in Table 7-2, Lakewood, Long Beach, and Signal Hill are expected to see their employment base expand more rapidly than that of the county. Unemployment levels in the counties of southern California have mirrored closely the cyclical pattern of that of the State of California. Unemployment fell throughout the 1980s (to below 6 percent) but rose steeply in the early 1990s. This rise was associated with the reduction in military spending (especially in the aerospace industry) at the end of the Cold War. Unemployment rates peaked in 1993 and then fell gradually throughout the remaining 1990s with the rebound of the economy buoyed by the surge in dot-com activity and residential construction boom. Following the exuberance of this period, unemployment rates rose for a few years before moving downward again. Throughout these cycles, the unemployment rate in Orange County was consistently lower than that of other counties of southern California, as well as the state (Table 7-3).

**Table 7-2. Total Civilian Employment Projection by County and City (2010-2045)**

	2010	2015	2020	2025	2030	2045	Change (2010-2045)		
							Numeric	Percent	Average Annual Percent
Southern California (Five-County Region)	8,652,468	9,113,530	9,566,212	9,998,496	10,416,130	11,849,084	3,196,616	36.94%	0.90%
<b>County:</b>									
Los Angeles County	5,022,215	5,198,739	5,366,865	5,520,139	5,660,992	6,105,484	1,083,269	21.57%	0.56%
Orange County	1,749,985	1,801,602	1,848,135	1,887,542	1,921,806	2,028,375	278,390	15.91%	0.42%
Riverside County	727,711	839,698	954,499	1,070,761	1,188,976	1,627,851	900,140	123.69%	2.33%
San Bernardino County	770,877	870,491	972,243	1,074,861	1,178,890	1,555,379	784,502	101.77%	2.03%
Ventura County	381,680	403,000	424,470	445,193	465,466	531,994	150,314	39.38%	0.95%
<b>City:</b>									
Los Angeles	1,994,358	2,057,435	2,117,623	2,172,642	2,223,338	2,382,635	388,277	19.47%	0.51%
Carson	68,552	70,482	72,302	73,932	75,398	79,973	11,421	16.66%	0.44%
Palos Verdes Estates	1,282	1,286	1,290	1,294	1,298	1,310	28	2.19%	0.06%
Rancho Palos Verdes	4,807	4,933	5,055	5,162	5,259	5,561	754	15.69%	0.42%
Redondo Beach	27,506	28,325	29,095	29,784	30,404	32,343	4,837	17.58%	0.46%
Rolling Hills	310	321	331	340	349	377	67	21.76%	0.56%
Rolling Hills Estates	4,793	4,930	5,060	5,175	5,278	5,599	806	16.83%	0.45%
Torrance	108,889	111,523	114,009	116,228	118,230	124,445	15,556	14.29%	0.38%
Lakewood	15,794	16,509	17,195	17,829	18,423	20,326	4,532	28.70%	0.72%
Long Beach	213,998	222,549	230,774	238,440	245,647	268,602	54,604	25.52%	0.65%
Signal Hill	12,255	13,770	15,211	16,524	17,728	21,892	9,637	78.64%	1.67%
<i>Source:</i> SCAG 2007. Plus extrapolation from 2030 to 2045.									

**Table 7-3. Unemployment Rate (percent) by County (1990-2004)**

Year	County					California
	Los Angeles	Orange	Riverside	San Bernardino	Ventura	
1990	5.8	3.5	7.2	5.6	5.8	5.8
1991	8.0	5.3	10.1	8.3	7.6	7.8
1992	9.9	6.7	11.9	9.7	9.0	9.4
1993	10.0	6.9	12.2	10.0	9.1	9.5
1994	9.3	5.7	10.6	8.7	7.9	8.6
1995	8.0	5.1	9.5	7.9	7.4	7.9
1996	8.3	4.2	8.4	7.4	7.3	7.3
1997	6.9	3.3	7.6	6.5	6.7	6.4
1998	6.6	2.9	6.7	5.7	5.6	6.0
1999	5.9	2.7	5.5	4.9	4.8	5.3
2000	5.4	2.5	5.5	4.7	4.5	5.0
2001	5.7	3.1	5.3	4.9	4.6	5.4
2002	6.8	4.2	6.1	5.7	5.4	6.7
2003	7.0	3.9	6.2	5.9	5.4	6.8
2004	6.6	3.4	5.8	5.5	5.0	6.2

*Source: CEDD 2007.*

1 The total number of farm and nonfarm jobs in Los Angeles County decreased over  
2 the period of 1990 to 2004 by almost 150,000 jobs, or almost 4 percent (Table 7-4).  
3 The greatest numeric decline took place in the manufacturing sector with a decrease  
4 of 40 percent, or over 327,000 jobs. Manufacturing saw its share of total  
5 employment decline from almost 20 percent in 1990 to just over 12 percent in 2004.  
6 This decline in manufacturing employment, as well as small declines in other  
7 industries, was virtually compensated for by large increases in education and health  
8 services, leisure and hospitality, and local government.

9 Research conducted by SCAG (2004a) demonstrates that the average per capita  
10 income and average payroll per job in the five southern California counties have  
11 declined significantly over the last 10 to 15 years when compared to other  
12 metropolitan areas in the nation. This deterioration began noticeably with the severe  
13 economic dislocation experienced in the high-paying aerospace and defense  
14 manufacturing sector in the early 1990s during the post Cold War recession.  
15 Although the region recovered from the employment loss in succeeding years, the  
16 quality (and salary) of the jobs created compared poorly with those lost.

17 Over the period 1990-2003, many of the lost jobs have been in well-paying sectors  
18 such as manufacturing (aerospace, electronic instrument, computer and peripheral,  
19 machinery, and fabricated metal) and Department of Defense and other federal  
20 agencies. Although a significant number of well-paying jobs were added to the  
21 regional economy over the same time period (arts/entertainment/recreation,  
22 wholesale trade, transportation and warehousing, construction, local government, and

**Table 7-4. Population by Region, County, Place, and Community Plan Area (1990-2005)**

	<i>4/1/1990 (Census)</i>	<i>4/1/2000 (Census)</i>	<i>1/1/2005 (Estimate)</i>	<i>Numeric</i>	<i>Percent</i>	<i>Average Annual Percent</i>
Southern California (Five-County Region)	14,531,529	16,373,645	17,919,625	3,388,096	23.32%	1.41%
Los Angeles County	8,863,052	9,519,338	10,226,506	1,363,454	15.38%	0.96%
Orange County	2,410,668	2,846,289	3,056,865	646,197	26.81%	1.60%
Riverside County	1,170,413	1,545,387	1,877,000	706,587	60.37%	3.20%
San Bernardino County	1,418,380	1,709,434	1,946,202	527,822	37.21%	2.13%
Ventura County	669,016	753,197	813,052	144,036	21.53%	1.31%
City of Los Angeles	3,485,398	3,694,820	3,957,875	472,477	13.56%	0.85%
Harbor Area Planning Commission	182,054	193,168	192,912	10,858	5.96%	0.45%
Community Plan Area:						
Harbor Gateway	36,011	39,685	39,738	3,727	10.35%	0.76%
Port of Los Angeles	1,785	1,804	1,844	59	3.31%	0.25%
San Pedro	74,175	76,173	76,756	2,581	3.48%	0.26%
Wilmington-Harbor City	70,083	75,506	74,574	4,491	6.41%	0.48%
Incorporated Cities:						
Carson	83,995	89,730	98,329	14,334	17.07%	1.06%
Lakewood	73,553	79,345	83,674	10,121	13.76%	0.86%
Long Beach	429,321	461,522	491,564	62,243	14.50%	0.91%
Palos Verdes Estates	13,512	13,340	14,208	696	5.15%	0.34%
Rancho Palos Verdes	41,667	41,145	43,525	1,858	4.46%	0.29%
Redondo Beach	60,167	63,261	67,325	7,158	11.90%	0.75%
Rolling Hills	1,871	1,871	1,983	112	5.99%	0.39%
Rolling Hills Estates	7,789	7,676	8,191	402	5.16%	0.34%
Signal Hill	8,371	9,333	10,951	2,580	30.82%	1.81%
Torrance	133,107	137,946	147,405	14,298	10.74%	0.68%

Source: Department of Finance (DOF) 2005; LADCP 2005.

1 health care), the majority of new jobs were lower-paying in the services (office  
2 administrative, employment, and food and drinking places) and local government  
3 education sectors. The average annual wage level of the losing sectors was just over  
4 \$45,000, while that of the gaining sectors was just over \$33,000: almost 27 percent  
5 lower.

## 6 **International Trade**

7 The international trade sector (i.e., all employment areas associated with the import  
8 and export of goods to or from international locations) is one of the growth engines  
9 of southern California and employment in this sector over the period 1980 through  
10 2003 has almost tripled, growing at an average annual rate of 4.4 percent. Over the  
11 same time period, total non-farm employment (i.e., all employment categories as  
12 defined in Table 7-2) grew at an average annual rate of 1.3 percent. It is estimated  
13 that approximately 475,000 jobs in southern California are associated with  
14 international trade.

15 The Los Angeles Customs District (LACD) includes the San Pedro Bay Ports, Port  
16 Hueneme, and Los Angeles International Airport. Of the total value of imports  
17 entering the LACD, over 80 percent are transported by vessels. China, Japan, and  
18 Taiwan are ranked first, second, and third, respectively, in terms of origin of  
19 commodities by value. Over 90 percent of the goods by value from China enter  
20 through the ports of Los Angeles and Long Beach. Approximately 83 percent and 75  
21 percent of the goods by value from Japan and Taiwan, respectively, enter through the  
22 ports. In the case of exports leaving the LACD, lower proportions of commodities  
23 (by value) are shipped through the ports with a greater share shipped by air. About  
24 50 percent of goods (by value) leave through ports. Combined, the Port of Los  
25 Angeles and the Port of Long Beach rank as the third largest port complex in the  
26 world, after Hong Kong and Singapore.

## 27 **Freight Movement and Logistics Sector of the Economy**

28 Freight movement is a system of related and integrated businesses with components  
29 of infrastructure, equipment, personnel, and information and is often referred to as  
30 the “logistics” sector. The purpose of this system is to achieve the distribution of  
31 goods and commodities between origins and destinations, or suppliers and  
32 consumers, in an increasingly global economy. The system includes maritime  
33 vessels, trucks, railroads, aircraft, pipelines, warehouses, and terminals, all of which  
34 work collectively and cooperatively. A recent study conducted for the New Jersey  
35 Department of Transportation demonstrated that employment associated with freight  
36 movement in the state accounted for the direct employment of over 484,000 workers,  
37 exceeding the number of jobs supported by manufacturing (New Jersey Department  
38 of Transportation 2001).

39 According to a study sponsored by SCAG, a number of factors important to  
40 companies have become especially costly in southern California: workers  
41 compensation insurance, electrical energy, and housing (Economics and Politics, Inc.  
42 2004). For companies that have considerable location freedom, costs in southern  
43 California are not attractive to their remaining or expanding in the region. For many  
44 companies, however, proximity to customers (the general population) and other

1 factors such as facilities (ports and airports) and skilled workforce (motion picture  
2 industry) are of overriding importance. These industries include the services sector,  
3 transportation and warehousing, and the motion picture industry.

4 The logistics and distribution sector of the economy is comprised largely of  
5 industries that are tied to port and airport functions. This sector involves the  
6 receiving, processing, storing, and moving of goods and is comprised of the  
7 following industrial sectors: wholesale trade; truck transportation; support services  
8 for transportation; non-local couriers; general warehousing; and air, rail, and water  
9 transportation. This group of industries has begun to provide large numbers of blue  
10 collar jobs that have traditionally been found in manufacturing. They provide an  
11 alternative employment source to replace well-paying manufacturing jobs that have  
12 left, and continue to leave, the region.

13 The recent *Trade Impact Study* prepared for the Alameda Corridor Transportation  
14 Authority (ACTA) and the Ports of Los Angeles and Long Beach examined the  
15 economic impacts of the trade that passes through the Ports in San Pedro Bay (ACTA  
16 2007). Impacts at the state, congressional district, and national levels were assessed.  
17 According to this study, state and local taxes generated throughout the nation from  
18 this trade activity grew from an estimated \$6 billion in 1994 to more than \$28 billion  
19 in 2005, of which \$6.7 billion was in California. The value of containerized trade  
20 passing through the Ports of Los Angeles and Long Beach totaled about \$256 billion,  
21 of which \$62.5 billion was in California. From 1994 to 2005, the number of jobs  
22 associated with the trade activity generated by the Ports of Los Angeles and  
23 Long Beach tripled, rising from 1.1 million jobs nationally in 1994 to 3.3 million jobs  
24 in 2005. In 2005, about 886,000 jobs in California were related to port industries or  
25 port users. This report included the economic contributions of the logistics industries  
26 located at the Ports of Los Angeles and Long Beach, as well as at wholesalers,  
27 distributors, and retailers located off the Ports.

## 28 **Port of Los Angeles**

29 Port-wide economic impacts for calendar year 2006 that are reported in a study titled  
30 *Economic Impacts of the Port of Los Angeles* (LAHD 2007) are summarized below.  
31 In 2006 the Port of Los Angeles handled tons of petroleum in, about 4.7 million  
32 containers and 30 million tons of non-containerized cargo, including nearly 4 million  
33 tons of steel imports and 15.5 million tons of petroleum. The Port as a whole  
34 supported 1,075,176 total jobs in the State of California. The total value of the marine  
35 cargo revenue in 2006 for the Port was over \$7 billion, including \$99.5 million for  
36 petroleum commodities. Inclusion of non-cargo revenue from cruise operations, fish  
37 processing, recreational boating, and other tenants further increases total Port  
38 revenues.

39 The Port of Los Angeles is one of the world's largest trade gateways, and the  
40 economic contributions to the regional economy are substantial. The Port facilitates  
41 tens of billions of dollars in industry sales each year in the southern California region.  
42 These sales translate into jobs, wages and salaries, and state and local taxes. It is  
43 estimated that the Port supports, directly and indirectly, 259,000 full- and part-time  
44 jobs in southern California and 1,353,500 jobs nationwide. The employment  
45 translates into \$8.6 billion annually in regional wages and salaries and \$1.4 billion

1 annually in state and local taxes. Of the regional direct, indirect, and induced  
2 benefits connected to the Port, approximately 70 percent occur in Los Angeles  
3 County. The major ways in which the Port contributes to the local and regional  
4 economy is through port industries, port users, and port customers.

5 Port industries are businesses involved in the moving and handling of maritime  
6 cargo. It is estimated that for every dollar spent by port industries, another 97 cents  
7 is generated in indirect sales in the region. Port industries account for approximately  
8 16,360 direct jobs (85 percent of which are trucking and warehousing jobs).

9 Port users are the biggest contributors to the economy. Port users are businesses that  
10 use the Port to receive imports or ship exports. Export manufacturers are among the  
11 major port users while others include local manufacturers who process imported,  
12 unfinished goods. Port users generate approximately \$12.1 billion in sales and  
13 stimulate an additional \$5.5 billion in local industry indirect sales. Local  
14 “responding” by workers employed by port users and the industries they affect  
15 amounts to approximately \$4.1 billion. Each dollar of spending for port user goods  
16 and services produces about 79 cents of additional industry sales in the five-county  
17 region.

18 Port customers are the retail and other noncargo businesses in the Port. They are  
19 most important to communities near the Port as a source of jobs, recreation, and  
20 specialty consumer goods. Port customers contribute about \$760 million to the local  
21 economy. Direct jobs associated with port customers numbered about 6,400 or  
22 roughly half of the jobs actually located in the Port. For every one of these port  
23 customer jobs, nearly 1.7 additional jobs are created elsewhere in the five-county  
24 region.

## 25 **Income**

26 Median household income and median family income for the study area are reported  
27 below. A household includes all the persons who occupy a housing unit. Household  
28 income is typically lower than family income because many households consist of  
29 only one person, whereas a family consists of a householder and one or more other  
30 persons living in the same household who are related to the householder by birth,  
31 marriage, or adoption. The median household income reported in the 2000 Census in  
32 Los Angeles County was just over \$42,000 (U.S. Census Bureau 2005a). Riverside  
33 and San Bernardino counties had median household incomes close to the County  
34 median, while the median values for Orange County and Ventura County were  
35 \$58,800 and \$59,600, respectively. By comparison, the median household income  
36 for the City of Los Angeles (i.e., within which the Port is located) was \$36,600, or  
37 somewhat lower than the any of the counties. Of total aggregate income, by far the  
38 largest proportion (between 69 and 77 percent) is contributed by wages and salary  
39 income at the county level.

40 Median family income by County varied across the five-county region from a low of  
41 \$46,500 (Los Angeles County) to a high of \$65,300 (Ventura County). Median  
42 family income was \$39,900 for the City of Los Angeles. For the Zoning  
43 Improvement Plan (ZIP) Code areas within a few miles of the Port, values exhibited a  
44 wider range: between \$19,600 and \$73,500. The median family income for



1           Wilmington was \$30,800. For the residents of Wilmington, compared to residents of  
 2           other ZIP Code areas in the vicinity, a higher proportion of their income was derived  
 3           from wages and salaries and public assistance, and a lower proportion came from  
 4           self-employment income, interest and dividends, and retirement. The median family  
 5           income for San Pedro was between \$35,910 (ZIP Code 90731) and \$63,614 (ZIP  
 6           Code 90732).

### 7           **7.2.1.2    Population**

8           The number of residents of the five counties of southern California increased by  
 9           almost 3.4 million between 1990 and 2005 at an average annual rate of 1.4 percent.  
 10          The most rapid rate of change took place in Riverside County (3.2 percent annually)  
 11          and San Bernardino County (2.1 percent annually). While the largest numeric  
 12          increase occurred in Los Angeles County (almost 1.4 million persons), the rate of  
 13          change was the least of the counties (1.0 percent annually) (Table 7-4).

14          The population of the City of Los Angeles increased over the same time, but at a  
 15          substantially slower pace. The number of residents increased by over 472,000, an  
 16          average annual rate of 0.8 percent. A number of the cities in the South Bay section of  
 17          southern California saw population increase at a rate greater than that of the City of  
 18          Los Angeles: Signal Hill (1.8 percent annually), Carson (1.1 percent annually), and  
 19          Lakewood and Long Beach (0.9 percent annually). The community plan areas near  
 20          the Port experienced only modest population gains.

21          Population projections prepared by SCAG forecast a compound rate of growth over  
 22          the 35-year period between 2010 and 2045 of less than 1 percent annually for  
 23          southern California. The region is projected to increase by over 6.3 million residents  
 24          over the period. The highest growth rates are projected for Riverside and San  
 25          Bernardino counties. The population of the City of Los Angeles is projected to  
 26          increase by almost 380,000 residents at an annual average rate of 0.3 percent.

### 27          **7.2.1.3    Housing**

#### 28          **Housing Construction**

29          Housing construction typically exhibits a cyclical pattern in response to local,  
 30          regional, and national economic conditions. In the case of southern California,  
 31          residential construction experienced periods of expansion between 1967 and 1972,  
 32          1975 and 1977, 1982 and 1986, and 1995 to 2004 with periods of decline in between.  
 33          The decline in activity from 1986 through 1993 was in response to the economic  
 34          dislocation associated with reductions in military defense spending and base closures.  
 35          From a level of over 160,500 units authorized for construction in 1986, the number  
 36          fell to just over 28,000 in 1993. By 2004, the number of units authorized for  
 37          construction had reached almost 90,000.

38          Over the 38-year period from 1967 to 2004, almost 2.8 million housing units were  
 39          issued permits for construction in southern California. Of these units, the majority  
 40          were constructed in Los Angeles County (39.4 percent of the regional total), followed  
 41          by Orange County (with 22.6 percent of the total) and Riverside County (with  
 42          17.7 percent of the total).

1 The contribution made to the new housing constructed in southern California by each  
2 of the individual counties has changed noticeably over time. At the start of the  
3 reporting period, Los Angeles County contributed over 50 percent of all new  
4 residential construction in southern California. However, this share declined to less  
5 than 30 percent by the end of the reporting period. In contrast, the Riverside County  
6 share increased over the 38-year period from about 5 percent to almost 40 percent.  
7 Likewise, the San Bernardino County contribution rose from around 6 percent to  
8 about 20 percent.

## 9 **Housing Characteristics**

10 In Los Angeles County the proportion of owner-occupied housing units in 2000 was  
11 almost 48 percent (52 percent was renter-occupied). For the City of Los Angeles, the  
12 corresponding shares were 39 percent and 61 percent, respectively. Within the ZIP  
13 Code areas in the vicinity of the Port, the percentage of owner-occupied housing  
14 units varies from high values for western San Pedro (73.1 percent) and Carson (74.0  
15 percent) to low values for Wilmington (38.8 percent), and portions of Long Beach  
16 (12.4 percent and 19.5 percent) (see Table 7-5).

17 There are a number of similarities in the characteristics of the housing units and their  
18 occupants between Wilmington and San Pedro. The proportion of rented housing  
19 units is high (61 percent for Wilmington and 68 percent for San Pedro). There are  
20 relatively few apartment buildings containing 10 or more units. The median age of  
21 the housing units is 1961 and 1960 for Wilmington and San Pedro, respectively.  
22 Home owners are well-established, having resided in the same house since 1985 in  
23 Wilmington and 1988 in the case of San Pedro. However, the housing quality  
24 appears to be lower in Wilmington based on a comparison of Census data that report  
25 the proportion of housing units lacking adequate plumbing and kitchen facilities for  
26 the respective ZIP Code areas.

## 27 **Housing Price**

28 Over the period 1990-2003, the median home price (for existing homes) in Los  
29 Angeles County increased from \$251,000 to \$375,700; a rise of just over 49 percent  
30 taking place at an average annual rate of 3.1 percent (LAEDC 2004). Median prices  
31 in the other four counties of southern California also rose: 4.1 percent in Orange  
32 County; 3.9 percent annually in Ventura County; 3.8 percent in Riverside County;  
33 and 3.4 percent in San Bernardino County. This rate of increase in home prices,  
34 however, did not take place uniformly over the time period. Specifically, over the  
35 initial 5-year period 1990–1995, each of the southern California counties experienced  
36 negative change in home values. The greatest decline took place in Los Angeles  
37 County where median home values fell by 12.5 percent (2.6 percent annually). Then,  
38 from 1995-2000, prices increased at rates exceeding 7 percent annually (with the  
39 exception of Los Angeles County which increased by 6.8 percent). Finally, over the  
40 period 2000-2003, annual growth rates exceeded 10 percent annually in all five  
41 counties. This suggests that although there was a strong overall upward trend in  
42 prices between 1990 and 2003 in the five counties, price declines occurred in the  
43 early part of the timeframe which were more than offset thereafter. The trend in  
44 prices of new homes closely mirrored that for existing homes.

Table 7-5. Housing Characteristics in 2000

	ZIP Code Area												
	Los Angeles County	City of Los Angeles	90501 Torrance	90502 Torrance	90710 Harbor City	90731 San Pedro	90732 San Pedro	90744 Wilmington	90745 Carson	90802 Long Beach	90806 Long Beach	90810 Long Beach	90813 Long Beach
<b>Total Housing Units</b>	3,270,909	1,337,668	14,367	5,801	8,603	22,522	9,501	14,600	15,145	20,442	15,528	9,518	17,745
<b>Total Occupied housing units</b>	3,133,774	1,275,358	13,810	5,593	8,351	21,370	8,746	13,954	14,671	18,838	14,575	9,140	16,436
Percent Owner-Occupied	47.86%	38.56%	42.76%	69.41%	55.53%	31.86%	73.16%	38.79%	74.02%	19.52%	36.83%	56.73%	12.36%
Percent Renter-Occupied	52.14%	61.44%	57.24%	30.59%	44.47%	68.14%	26.84%	61.21%	25.98%	80.48%	63.17%	43.27%	87.64%
<b>Vacancy Rate</b>	4.38%	4.89%	4.03%	3.72%	3.02%	5.39%	8.63%	4.63%	3.23%	8.51%	6.54%	4.14%	7.96%
<b>Median number of rooms per unit</b>	4.2	3.7	4.0	4.4	4.2	3.9	5.1	3.3	4.7	2.8	3.6	4.1	2.8
<b>Number of Units in Structure</b>													
Percent single detached units	48.72%	39.23%	47.52%	52.58%	43.15%	34.95%	52.80%	43.25%	63.61%	4.33%	36.86%	64.69%	16.53%
Percent single attached units	7.39%	6.56%	8.25%	14.46%	6.88%	8.85%	16.82%	9.01%	12.12%	2.21%	9.12%	6.79%	6.16%
Percent 2 units	2.74%	3.20%	2.74%	0.53%	1.69%	5.70%	0.43%	3.35%	1.33%	2.74%	5.84%	2.51%	6.62%
Percent 3 or 4 units	6.05%	6.45%	8.52%	2.69%	5.31%	20.88%	5.17%	8.95%	2.03%	7.86%	12.91%	5.65%	16.69%
Percent 5 to 9 units	8.23%	9.44%	10.72%	7.17%	7.22%	11.39%	8.22%	10.72%	2.26%	12.68%	17.48%	5.64%	17.34%
Percent 10 to 19 units	8.05%	10.36%	7.73%	1.45%	11.51%	7.65%	2.94%	8.16%	1.67%	26.21%	8.48%	3.43%	22.27%
Percent 20 to 49 units	8.85%	12.83%	7.99%	4.90%	5.14%	5.40%	5.64%	7.26%	2.95%	20.48%	5.40%	3.53%	8.43%
Percent 50 or more units	8.25%	11.25%	3.79%	8.77%	6.46%	4.76%	5.44%	6.42%	4.23%	22.86%	3.62%	4.50%	5.71%
Percent Mobile home	1.63%	0.61%	2.74%	7.45%	12.41%	0.16%	2.54%	1.99%	9.75%	0.07%	0.24%	3.18%	0.26%
Percent Boat; RV; van; etc.	0.10%	0.06%	0.00%	0.00%	0.23%	0.25%	0.00%	0.89%	0.04%	0.54%	0.05%	0.08%	0.00%
<b>Year Structure Built</b>													
Percent Built 1999 to March 2000	0.69%	0.54%	0.81%	0.14%	2.71%	0.46%	0.16%	0.76%	1.28%	0.17%	0.41%	0.43%	0.60%
Percent Built 1995 to 1998	2.01%	1.90%	2.18%	2.93%	5.95%	1.30%	2.95%	1.67%	1.80%	0.92%	1.42%	0.89%	2.09%
Percent Built 1990 to 1994	4.15%	3.72%	5.46%	4.21%	2.58%	4.40%	3.20%	3.41%	3.88%	6.12%	1.89%	1.18%	4.87%
Percent Built 1980 to 1989	12.33%	11.09%	9.68%	17.95%	12.48%	12.21%	19.76%	12.49%	11.86%	11.45%	11.30%	4.41%	14.16%
Percent Built 1970 to 1979	15.58%	15.02%	12.92%	23.36%	29.44%	15.16%	24.71%	15.49%	16.08%	12.49%	11.50%	14.30%	15.50%
Percent Built 1960 to 1969	17.83%	17.53%	22.15%	19.70%	24.31%	17.18%	14.74%	18.43%	30.21%	16.91%	12.93%	15.58%	19.12%
Percent Built 1950 to 1959	22.27%	20.49%	23.26%	24.41%	12.00%	16.05%	19.06%	21.99%	24.56%	14.81%	18.23%	24.30%	14.36%
Percent Built 1940 to 1949	12.25%	12.99%	12.06%	3.90%	6.89%	13.04%	6.69%	11.80%	7.09%	10.10%	21.32%	28.48%	10.53%
Percent Built 1939 or earlier	12.90%	16.71%	11.48%	3.41%	3.64%	20.20%	8.74%	13.96%	3.24%	27.03%	21.01%	10.42%	18.77%
<b>Housing units: Median year structure built</b>	1961	1960	1961	1969	1971	1960	1970	1961	1965	1959	1954	1955	1963
<b>Median year householder moved into unit: Total</b>	1995	1996	1996	1994	1995	1996	1993	1996	1992	1998	1996	1993	1997
Median year householder moved into unit: Owner occupied	1989	1988	1990	1990	1990	1988	1988	1985	1988	1996	1993	1986	1993
Median year householder moved into unit: Renter occupied	1997	1997	1997	1997	1997	1997	1997	1997	1997	1998	1997	1997	1998
Percent Lacking Complete Plumbing Facilities	1.11%	1.45%	1.11%	0.55%	1.28%	0.90%	0.23%	1.90%	0.65%	1.58%	1.59%	1.22%	1.89%
Percent Lacking Complete Kitchen Facilities	1.75%	2.41%	1.77%	0.88%	1.00%	1.92%	0.95%	2.60%	0.72%	2.87%	1.78%	1.65%	2.62%

Source: U.S. Census Bureau (2005b).

1 Median home prices at the community level also increased at high rates (LAEDC  
2 2002). For the period 1997-2002, average annual growth rates in excess of 10  
3 percent were experienced in a number of communities in the South Bay area of Los  
4 Angeles County: Wilmington; San Pedro; Carson; Hawthorne; Hermosa Beach;  
5 Lawndale; and Lomita. Home prices increased in all communities regardless of the  
6 level of the price at the beginning of the period. However, not surprisingly, those  
7 communities with the highest growth rates were communities with among the lowest  
8 home prices. Median home prices in Wilmington increased from \$103,500 in 1997  
9 to \$196,000 in 2002 (at an average annual rate of 13.6 percent), and those in San  
10 Pedro rose from \$164,000 to \$320,000 over the same time period (at an average  
11 annual rate of 14.3 percent).

12 Median single family residence sales prices over the period 1993-2004 for homes  
13 located in the ZIP Code areas in the immediate vicinity of the Port rose on average by  
14 between 8 and 9 percent annually. The first five years of this period showed modest  
15 and negative growth. The latter 5 years, however, exhibited rapid growth with home  
16 prices more than doubling and registering average annual rates of change in excess of  
17 20 percent.

## 18 **7.2.2 Socioeconomic Effects**

19 This section evaluates the effects of the proposed Project, the No Federal Action/No  
20 Project Alternative and the Reduced Project Alternative on expenditures,  
21 employment, population, and housing. An overview and summary of the types of  
22 potential economic benefits from construction and operations is provided first,  
23 followed by discussions focusing on employment and activities at the various Project  
24 sites, and the related population and housing effects. In general, construction effects  
25 are discussed first, including effects under CEQA, followed by effects under NEPA,  
26 then operations effects are discussed, including effects under CEQA, then NEPA.

### 27 **Methodology and Model Description**

28 The economic impact analysis reported here was prepared using the Port Economic  
29 Impact Model developed and maintained for the Port by Martin Associates, an  
30 economic consulting firm with over 20 years experience assessing economic impacts  
31 to the world's transportation systems. The model employs methodology and  
32 definitions that have been used by Martin Associates to measure the economic  
33 impacts of seaport activity at more than 250 ports in the United States and Canada,  
34 and at the leading airports in the United States.

35 The Port Economic Impact Model was developed from detailed data gathered from  
36 economic actors at the Port. The data were gathered using telephone and personal  
37 interviews with 721 firms in the Los Angeles area that are either Port tenants or firms  
38 that provide services to the marine cargo, cruise, marinas, and fish processing activity  
39 on Port property. This represents the universe of the marine cargo, cruise, fish  
40 processors, marinas on Port property, and mixed use real estate tenants (with the  
41 exception of trucking and freight forwarding firms) in the Los Angeles area, as  
42 defined in the "Port of Los Angeles Industry Guide," the "Port of Los Angeles  
43 Shipping Handbook," and the "Marine Exchange of southern California," as well as  
44 lists of tenants and subtenants provided by the Port. It is to be emphasized that a

1 100% response rate was achieved from the firms located in these directories and Port  
2 tenant listings. The direct impacts are measured at the firm level of detail, and  
3 aggregated to develop the impacts for each of the Port's lines of business. Each firm  
4 surveyed provided Martin Associates with detailed employment levels (both full-time  
5 and part-time), annual payroll, local purchases and the residence of where the  
6 employees reside.

7 Indirect jobs are attributable to related industry sectors, including firms in sectors that  
8 sell inputs to industries directly impacted (e.g., firms that supply goods to firms that  
9 make building materials) and sectors that benefit from changes in household  
10 spending as aggregate household income increases due to increased jobs (e.g., the  
11 retail sector). The indirect impacts are estimated based on the local purchases by the  
12 directly dependent firms, combined with indirect job, income and revenue  
13 coefficients for the supplying industries in the State of California as developed for  
14 Martin Associates by the U.S. Bureau of Economic Analysis (BEA) Regional  
15 Input/Output Modeling System (RIMS II). RIMS II is based on an accounting  
16 framework called an input-output (I-O) table. For each industry, an I-O table shows  
17 the industrial distribution of inputs purchased and outputs sold. A typical I-O table in  
18 RIMS II is derived mainly from two data sources: BEA's national I-O table, which  
19 shows the input and output structure of nearly 500 U.S. industries, and BEA's  
20 regional economic accounts, which are used to adjust the national I-O table to show a  
21 region's industrial structure and trading patterns. RIMS II uses BEA's benchmark  
22 and annual I-O tables for the nation. Since a particular region may not contain all the  
23 industries found at the national level, some direct input requirements cannot be  
24 supplied by that region's industries. Input requirements that are not produced in a  
25 study region are identified using BEA's regional economic accounts.

26 The RIMS II method for estimating regional I-O multipliers can be viewed as a three-  
27 step process. In the first step, the producer portion of the national I-O table is made  
28 region-specific by using location quotients (LQ's) corresponding to six-digit industry  
29 codes from the North American Industrial Classification System (NAICS). The LQ's  
30 estimate the extent to which input requirements are supplied by firms within the  
31 region. RIMS II uses LQ's based on two types of data: BEA's personal income data  
32 (by place of residence) are used to calculate LQ's in the service industries; and  
33 BEA's in the non-service industries.

34 In the second step, the household row and the household column from the national I-  
35 O table are made region-specific. The household row coefficients, which are derived  
36 from the value-added row of the national I-O table, are adjusted to reflect regional  
37 earnings leakages resulting from individuals working in the region but residing  
38 outside the region. The household column coefficients, which are based on the  
39 personal consumption expenditure column of the national I-O table, are adjusted to  
40 account for regional consumption leakages stemming from personal taxes and  
41 savings.

42 In the last step, the Leontief inversion approach is used to estimate multipliers. This  
43 inversion approach produces output, earnings, and employment multipliers, which  
44 can be used to trace the impacts of changes in final demand on directly and indirectly  
45 affected industries. Note that for modeling purposes and to achieve the greatest  
46 accuracy, direct, indirect and total jobs are calculated without rounding, whereas for  
47 reporting purposes in the text below, the resulting jobs numbers are rounded to whole

1 numbers for each job category. Therefore, in some cases, adding the direct and  
2 indirect jobs reported below may result in slightly different totals (e.g., a difference  
3 of one job) in total jobs.

4 In the discussion below, unless specified otherwise, job numbers represent one year  
5 full-time equivalent (FTE) jobs (i.e., 2,040 person-hours of labor), also expressed as  
6 FTE jobs, or simply as jobs.

### 7 **7.2.2.1 Proposed Project Effects**

8 Construction of the new crude oil marine terminal and related facilities (e.g. pipelines  
9 and tank farms) would result in direct proposed Project expenditures of  
10 approximately \$455 million over a 30-month period commencing with project  
11 approval, during which time purchases of construction labor, materials, supplies,  
12 services, and Project equipment would be made by the applicant and the Port. This  
13 figure includes approximately \$400 million spent by the applicant for the landside  
14 terminal elements, pipelines, storage facilities, and environmental permitting fees.  
15 The wharf, utilities, and walkway would be designed and constructed by the Port;  
16 total capital cost is estimated to be \$50 to \$55 million.

17 These expenditures, in turn, would produce a ripple effect that includes “indirect”  
18 activity associated with purchases by firms that supply goods and services to the  
19 construction industry, as well as “induced” activity resulting from expenditures by  
20 workers employed by the various firms involved in the economic activity (e.g.,  
21 benefits to the retail sector from increased purchases by households). For simplicity,  
22 these indirect and induced effects are referred to collectively as indirect effects.

23 Because the NEPA Baseline includes what would reasonably be expected to occur in  
24 the future if the proposed Project were not implemented, which would include some  
25 employment to construct the improvements at Tank Farm Site 1 and 2 described in  
26 Section 2.6.1 and 2.5.2.1, the net expenditure associated with the proposed Project  
27 compared to the NEPA Baseline is less than that compared to the CEQA Baseline.  
28 Expenditures under NEPA were determined by subtracting the expenditures  
29 associated with the NEPA Baseline (i.e., what would reasonably be expected to occur  
30 in the future absent a USACE permit) from the proposed Project effects. Under  
31 NEPA, net construction expenditures for the proposed Project would be  
32 approximately \$431 million (the expenditures associated with improvements at Tank  
33 Farm Sites 1 and 2 in the NEPA Baseline are estimated at about \$24 million).

### 34 **Employment**

35 The proposed Project would generate temporary construction employment during the  
36 30-month construction period in 2008-2011. Construction would ramp up quickly  
37 after proposed Project approval and would occur in several locations simultaneously  
38 (see Figure 2-11). Construction would result in the direct creation of approximately  
39 732 FTEs over the 30 months (i.e., an average of 293 full-time jobs lasting 30  
40 months). However, with the ramp-up and ramp-down and the completion of different  
41 tasks at different times, the peak construction workforce would be greater than 293.  
42 During peak construction of each element, the construction workforce would include  
43 approximately 90 personnel for the Marine Terminal; 151 personnel for Tank Farm

1 Site 1 and Pipeline Segment 1; 192 personnel for Tank Farm Site 2 and Pipeline  
2 Segments 2a, 2b, and 2c; and 90 personnel for Pipeline Segments 3, 4, and 5. Based  
3 on currently available construction scheduling information, the maximum expected  
4 construction workforce at any time during construction would be 469 personnel.  
5 However, to provide for a conservative analysis, the environmental analysis assumes  
6 there may be a period in which all sites are in peak construction. If this were the case,  
7 the construction workforce could be as many as 523 personnel at the various sites.  
8 (Note that the peak construction workforce would not overlap the period of  
9 simultaneous construction and operation, since operation would not begin until most  
10 construction is complete.)

11 In addition to direct construction jobs, the construction expenditures of  
12 approximately \$455 million would result in secondary increases in employment  
13 related to purchases from materials supply firms and their suppliers and household  
14 expenditures by workers, referred to, when combined, as indirect employment. The  
15 indirect employment associated with the construction expenditures of the proposed  
16 Project (compared to the CEQA Baseline) is estimated at 1,035 FTE jobs based on  
17 the Port Economic Impact Model described above. Thus, the combined total  
18 compared to the CEQA Baseline is estimated at 1,767 jobs over the 2008-2011  
19 construction period.

20 The construction workforce would primarily come from people already living in the  
21 Los Angeles Basin, given the large existing construction industry workforce. Much  
22 of the indirect workforce would also likely come from within the Los Angeles Basin.  
23 The proposed Project, therefore, is not anticipated to result in either in-migration or  
24 relocation of construction employees to satisfy the need for increased temporary,  
25 construction-related employment.

26 Since construction expenditures compared to the NEPA Baseline are less than those  
27 compared to the CEQA Baseline, under NEPA, the proposed Project would result in  
28 construction expenditures of approximately \$431 million, which represents 692 direct  
29 construction jobs and 979 indirect jobs, or 1,671 total jobs.

30 As documented in Chapter 2, annual vessel calls to the proposed Berth 408 crude oil  
31 terminal would be 129 vessel calls in 2010, ramping up to 201 vessel calls in 2025-  
32 2040. Harbor services (e.g., tugboat crews) would have enough capacity to handle the  
33 additional ships with only minor delays but no operational issues that can not be  
34 overcome (Christiansen 2007). A small increase in pilot and towing crews is  
35 included in the modeling analysis to conservatively account for increased labor that  
36 could be needed, based solely on the increased number of tankers as opposed to the  
37 existing capacity of the pilot and towing workforce.

38 The proposed Project is estimated to create 48 permanent direct jobs attributable to  
39 operations in 2010, and 54 jobs in 2025-2040, with the increase in later years  
40 attributable to the increase in pilot and towing jobs due to more vessel calls, as well  
41 as maintenance and inspection that would occur after the first five to ten years of  
42 operations. These jobs include those associated with the terminal operations  
43 themselves as well as tugboat crews and Port pilots. Linkages among economic  
44 sectors would result in the creation of additional indirect jobs in related sectors. In  
45 2025-2040, the indirect jobs are estimated at 158, for a total of 212 jobs in 2025-

1 2040. Similar to the short-term construction employees discussed above, no significant  
2 influx of employees into the local communities would occur.

3 The NEPA Baseline includes what would reasonably be expected to occur in the  
4 future if the proposed Project were not implemented, which would include some  
5 employment associated with piloting and towing (tug activity) to support increased  
6 vessel calls at existing terminals in the San Pedro Bay Ports. Thus, the employment  
7 effect of the proposed Project under NEPA is somewhat less than under CEQA.  
8 Under NEPA, jobs benefits from operation of the proposed Project would include up  
9 to 42 direct jobs attributable to operations in 2025-2040, and 126 indirect jobs, for a  
10 total of 168 jobs. Similar to the short-term construction employees discussed above, no  
11 significant influx of employees into the local communities would occur.

12 The proposed Project includes the construction of infrastructure to accommodate  
13 marine imports of crude oil in order to replace declining crude supplies from in-state,  
14 which historically have arrived in southern California primarily via pipeline from oil  
15 fields within central California. The proposed Project would provide the  
16 infrastructure to accommodate replacement of this domestic supply, and would also  
17 accommodate projected increases in crude oil demand over the long term. As noted  
18 elsewhere in the document, particularly in Section 1.1.3.1 and Appendix D1, the  
19 projected increase in crude oil demand is based on increased consumer demand for  
20 transportation fuels and increased refinery distillation capacity (“refinery capacity  
21 creep”). Both of these factors are projected to increase independent of the proposed  
22 Project (see Chapter 8, Growth-Inducing Impacts, for more detail). Therefore, the  
23 proposed Project would not result directly or indirectly in increased employment,  
24 economic output, or earnings associated with the refining of crude oil or distribution  
25 or retailing of refined products.

## 26 **Population**

27 The proposed Project would not induce substantial population growth, either directly  
28 (for example, by proposing new homes and businesses) or indirectly (for example,  
29 through extension of roads or other supporting infrastructure). During 2008-2011,  
30 short-term construction workers employed to build the Pier 400 Marine Terminal, the  
31 tank farms, and the connecting pipelines and utility infrastructure required to serve  
32 the sites, would be expected to be hired from the local area. During construction, the  
33 proposed Project would result in 1,767 total one year FTE jobs compared to the  
34 CEQA Baseline and 1,671 total jobs compared to the NEPA Baseline. Changes in  
35 employment due to anticipated changes in terminal operations (increased vessel calls)  
36 would result in an increase of 212 on-going jobs from 2025 to 2040 under CEQA and  
37 up to 168 jobs under NEPA.

38 These increases in jobs, though beneficial, are nonetheless miniscule compared to the  
39 workforce of 8 million, and the population of 17 million, in the five-county area  
40 (Table 7-1 and 7-4). The proposed Project would therefore not be associated with  
41 substantial population growth. The Project would also not result in population  
42 displacement.



## Housing

The proposed Project would not displace any housing and does not propose construction of housing. Because of the large size of the workforce in the region, the peak construction employment of 523 workers during the construction period and job increases identified above, as well as changes in long-term (2010-2040) direct and indirect employment from operation of the proposed Project, would result in minimal population in-migration and relocation; therefore, the proposed Project would result in negligible changes in demand for additional housing.

### 7.2.2.2 No Federal Action/No Project Alternative Effects

Under the No Federal Action/No Project Alternative, proposed Project facilities would not be constructed or operated. As described in Section 2.5.2.1, the No Federal Action/No Project Alternative considers the only remaining allowable and reasonably foreseeable use of the proposed Project site: Use of the site for temporary storage of wheeled containers on the site of Tank Farm 1 and on Tank Farm Site 2. This use would require paving, construction of access roads, and installation of lighting and perimeter fencing.

In addition, for analysis purposes, under the No Federal Action/No Project Alternative a portion of the increasing demand for crude oil imports is assumed to be accommodated at existing liquid bulk terminals in the San Pedro Bay Ports, to the extent of their remaining capacities. Although additional demand, in excess of the capacity of existing marine terminals to receive it, may come in by rail, barge, or other means, rather than speculate about the specific method by which more crude oil or refined products would enter southern California, for analysis purposes, the impact assessment for the No Federal Action/No Project Alternative in this SEIS/SEIR is based on marine deliveries only up to the available capacity of existing crude oil berths. As described in Section 2.5.2.1, the impact assessment for the No Federal Action/No Project Alternative also assumes existing terminals would eventually comply with the California State Lands Commission (CSLC) Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS), that LAHD and the Port of Long Beach would renew the operating leases for existing marine terminals, and that existing terminals would comply with Clean Air Action Plan (CAAP) measures as of the time of lease renewal (i.e., 2008 for Port of Long Beach Berths 84-87, 2015 for LAHD Berths 238-240, and 2023 for Port of Long Beach Berths 76-78).

The NEPA Baseline condition coincides with the No Federal Action/No Project Alternative for this project because the USACE, the LAHD, and the applicant have concluded that, absent a USACE permit, no part of the proposed Project would be built (Section 2.6.1). All elements of the No Federal Action/No Project Alternative are identical to the elements of the NEPA Baseline. Therefore, under a NEPA determination there would be no impact associated with the No Federal Action/No Project Alternative.

The following analysis presents socioeconomic effects of the No Federal Action/No Project Alternative associated with changes relative to the 2004 baseline year (i.e., applicable under CEQA). Although CEQA does not require a socioeconomic analysis, an analysis of socioeconomic effects can be used to help determine the

1 significance of physical impacts on the environment and as a factor in considering  
2 whether to approve the proposed Project or alternatives.

3 The No Federal Action/No Project Alternative includes some expenditures to  
4 construct the improvements at Tank Farm Site 1 and 2 described immediately above  
5 (and also in Section 2.5.2.1). Construction expenditures at Tank Farm Site 1 are  
6 estimated at approximately \$7 million, and at Tank Farm Site 2 are estimated at about  
7 \$17 million (total construction expenditures of \$24 million). These expenditures  
8 represent purchases of construction labor, materials, supplies, services, and  
9 equipment. The specific construction timeframe has not been determined, however,  
10 construction is not anticipated to begin for approximately five years or more  
11 (personal communication, D. Walsh, 2007). Construction expenditures would also  
12 result in indirect effects on employment, which are described below.

13 As described previously, the No Federal Action/No Project Alternative would have  
14 no impact under NEPA. Net construction expenditures would be zero since the No  
15 Federal Action/No Project Alternative is equivalent to the NEPA Baseline.

## 16 **Employment**

17 The construction expenditure of about \$24 million would create 40 direct jobs (FTEs)  
18 and 56 indirect jobs on a short-term basis. Similar to the proposed Project, indirect  
19 jobs are estimated based on the economic relationships captured in the Port  
20 Economic Impact Model. Because of the size of the large workforce in the region,  
21 construction workers and workers needed to fill the related indirect jobs are expected  
22 to be available locally.

23 Because the APM terminal is constrained by available berth space rather than  
24 available backlands (personal communication, D. Walsh, 2007), the temporary  
25 storage of wheeled containers would not result in increased throughput (i.e., vessel  
26 calls, train trips, and truck trips) at the APM terminal. Instead, APM would be able  
27 to operate somewhat more efficiently by converting a small portion of their container  
28 throughput to wheeled, rather than stacked, operation. Operation of the site would  
29 involve the draying of chassis-mounted containers from APM's main container yard  
30 to the site by cargo-handling equipment and pick-up of the chassis by on-road trucks  
31 for delivery to destinations outside the harbor. These activities would be relocated  
32 from the main container yard, rather than representing new activities. Therefore, it is  
33 assumed that existing employees would be utilized for operation of the wheeled  
34 container storage area. Similarly, temporary storage of wheeled container storage at  
35 Tank Farm Site 2 would not result in increased throughput by container terminals  
36 using that site because both of the terminal operators that could use that site are also  
37 berth limited (personal communication, D. Walsh, 2007).

38 Increased throughput and vessel calls at existing marine terminals under the No  
39 Federal Action/No Project Alternative would not likely result in significant new  
40 employment at the affected terminals, because most operations at modern oil  
41 terminals are highly automated. Some increase in pilot and towing jobs may be  
42 needed to handle the increased number of tankers. According to the relationships  
43 established in the research for the Port Economic Impact Model, the increased vessel  
44 calls in the operation phase of the No Federal Action/No Project Alternative would

1 result in 10 new direct jobs in 2010 and 12 new direct jobs in 2015-2040. Indirect  
2 jobs are estimated at 28 in 2010 and 32 in 2015-2040.

3 There is the potential for increases in demand that cannot be met by growth in  
4 operations at the existing marine terminals to be met through other means of  
5 transporting crude to local refineries via barge, or rail, or other means, or providing  
6 refined crude products from other parts of the United States in order to meet demand.  
7 The quantification of employment and income associated with this possibility would  
8 be speculative given the many sources and types of possible supply and  
9 transportation modes, but could provide an economic benefit that would likely be  
10 more geographically dispersed than for the proposed Project and less focused on  
11 southern California and Los Angeles County.

12 However, from a socioeconomic perspective the most important impact of the No  
13 Federal Action/No Project Alternative would be higher prices of transportation fuels  
14 for consumers and businesses. Appendix D2 addresses this issue in detail.

### 15 **Population**

16 The No Federal Action/No Project Alternative would not induce substantial  
17 population growth, either directly (for example, by proposing new homes and  
18 businesses) or indirectly (for example, through extension of roads or other supporting  
19 infrastructure). Short-term construction workers employed to build the wheeled  
20 container storage areas and workers needed to fill any related increase in indirect jobs  
21 (96 total jobs) would be expected to be hired from within the Los Angeles Basin. No  
22 changes in operations employment at terminals utilizing the two storage areas would  
23 occur as a result of anticipated changes in container storage operations. Because of  
24 the availability of a large local workforce in the region, population growth would be  
25 negligible. The No Federal Action/No Project Alternative would not result in  
26 population displacement and would not necessitate the construction of replacement  
27 housing elsewhere.

### 28 **Housing**

29 The No Federal Action/No Project Alternative would not displace any housing and  
30 does not propose construction of housing. Because of minimal changes in  
31 employment and population growth from the No Federal Action/No Project  
32 Alternative, there would be minimal changes in demand for additional housing.

## 33 **7.2.2.3 Reduced Project Alternative Effects**

34 Under the Reduced Project Alternative, as described in Section 2.5.2.2, construction  
35 and operation at Berth 408 would be identical to the proposed Project with the  
36 exception of the lease cap limiting throughput in certain years. However, as  
37 explained in Section 2.5.2.2, the lease cap would not change the amount of crude oil  
38 demanded in southern California, and therefore the analysis of the Reduced Project  
39 Alternative also includes the impacts of marine delivery of incremental crude oil  
40 deliveries to existing liquid bulk terminals in the San Pedro Bay Ports in years where  
41 demand exceeds the capacity of the lease-limited Berth 408.

1 As described in Section 2.5.2.2, the impact assessment for the Reduced Project  
2 Alternative also assumes existing terminals would eventually comply with the  
3 MOTEMS, that the LAHD and the Port of Long Beach would renew the operating  
4 leases for existing marine terminals, and that existing terminals would comply with  
5 CAAP measures as of the time of lease renewal (i.e., 2008 for Port of Long Beach  
6 Berths 84-87, 2015 for LAHD Berths 238-240, and 2023 for Port of Long Beach  
7 Berths 76-78).

8 Construction of the Reduced Project Alternative would be identical to construction of  
9 the proposed Project. Thus, as described in Section 7.2.2.1, its construction would  
10 result in the expenditure of approximately \$455 million over a 30-month period,  
11 during which time purchases of construction labor, materials, supplies, services, and  
12 Project equipment would be made by the applicant and the Port. This, in turn, would  
13 produce indirect activity associated with purchases by supplying firms from other  
14 suppliers, resulting in a ripple effect and induced activity resulting from expenditures  
15 by workers employed by the various firms involved in the economic activity.

16 Because existing terminals in the San Pedro Bay Ports would not require additional  
17 construction to accommodate the volumes of crude oil assumed in the Reduced  
18 Project Alternative, there would be no construction expenditures associated with the  
19 Reduced Project Alternative outside of those for the Marine Terminal at Berth 408  
20 and associated tank farms and pipelines.

## 21 **Employment**

22 Like the proposed Project, construction of the Reduced Project Alternative would  
23 generate temporary construction employment during the 30-month construction  
24 period. Up to approximately 523 total construction employees are estimated for the  
25 peak construction period, and during the 2008-2011 construction period 732 direct  
26 and 1,035 indirect jobs (1,767 total) would be created under CEQA. Relative to the  
27 NEPA Baseline, construction of the Reduced Project Alternative would create 692  
28 direct jobs and 979 indirect jobs (1,671 total jobs). Due to the size and diversity of  
29 the existing workforce in the Los Angeles Basin, the new jobs would primarily come  
30 from people already living in the five-county area. No significant influx of workers  
31 into the local communities is anticipated for the Reduced Project Alternative under  
32 CEQA or NEPA.

33 In the operation phase, the Reduced Project Alternative is estimated to create 48  
34 permanent direct jobs in 2010 and 61 direct permanent jobs in 2040. Like the  
35 proposed Project, the increase in later years is attributable to the increase in pilot and  
36 towing jobs due to more vessel calls, as well as maintenance and inspection that  
37 would occur after the first five to ten years of operations. However, unlike the  
38 proposed Project, the analysis of the Reduced Project Alternative includes more  
39 vessel calls at existing terminals in the San Pedro Bay Ports. The increased vessel  
40 calls would in turn require more tugboat crews and Port pilots. Since the Port  
41 Economic Impact Model estimates tugboat crew and Port pilot employment as a  
42 function of vessel calls, the model indicates more employment for these crews due to  
43 the higher total vessel call figures for the Reduced Project Alternative compared to  
44 the proposed Project (e.g., 372 calls in 2040, as opposed to 201 for the proposed  
45 Project).

1 Linkages among economic sectors would result in the creation of additional indirect  
2 jobs in related sectors. In 2040, under CEQA, indirect jobs are estimated at 178, for a  
3 total of 239 jobs in 2040. Similar to the short-term construction employees discussed  
4 above, no significant influx of employees into the local communities would occur.

5 Under NEPA, the net increase in permanent employment is slightly less because the  
6 NEPA Baseline includes some permanent employment. In 2010, the net increase of  
7 the Reduced Project Alternative compared to the NEPA Baseline would be 38 direct  
8 jobs in 2010, rising to 49 direct jobs in 2040. The Reduced Project Alternative would  
9 also create 146 indirect jobs under NEPA, for a grand total of 195 jobs in 2040.  
10 Similar to the short-term construction employees discussed above, no significant  
11 influx of employees into the local communities would occur.

## 12 **Population**

13 The Reduced Project Alternative would not induce substantial population growth,  
14 either directly (for example, by proposing new homes and businesses) or indirectly  
15 (for example, through extension of roads or other supporting infrastructure). Short-  
16 term construction workers employed to build the Pier 400 marine terminal, the tank  
17 farms, and the connecting pipelines and utility infrastructure required to serve the  
18 sites, as well as workers needed to fill indirect jobs, would be expected to be hired  
19 from the local area. Changes in employment due to the new terminal and increases in  
20 existing terminal operations (increased vessel calls) would not be substantial,  
21 including up to 239 direct and indirect jobs under CEQA (195 jobs under NEPA) or  
22 associated with substantial population growth due to the size and diversity of the  
23 regional economy. The Reduced Project Alternative would not result in population  
24 displacement and would not necessitate the construction of replacement housing  
25 elsewhere.

## 26 **Housing**

27 The Reduced Project Alternative would not displace any housing and does not  
28 propose construction of housing. Availability of a large workforce in the Los  
29 Angeles region would result in minimal in-migration or relocation of population and  
30 therefore, would result in minimal changes in demand for additional housing under  
31 both CEQA and NEPA.

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