

4. SOCIOECONOMICS

4.1 Introduction

This analysis evaluates the potential impacts of the Proposed Action on the existing socioeconomic attributes of the project area. The area of this analysis includes local communities within an approximate two-mile radius of the project area, consistent with the Final Supplemental Environmental Impact Statement/Supplemental Impact Report prepared for the Channel Deepening Project in September, 2000 (USACE and LAHD, 2000).

Socioeconomics encompasses a number of topical areas including employment and income, population, and housing. Within each of these areas, sub-topics are addressed. These include an examination of conditions at different geographical scales that have relevance to the potential impacts associated with implementation of the Proposed Action.

Section 4.2 provides the environmental setting for socioeconomics. Section 4.3 provides the applicable regulations related to socioeconomics, and Section 4.4 provides the impact analysis for socioeconomics. Please refer to Section 5.0 for a discussion of environmental justice.

4.2 Environmental Setting

The Port is located within the jurisdictional boundaries of the City of Los Angeles, California. The local study area of this analysis contains four U.S. Postal Service zip code areas, including portions of the communities of San Pedro, Wilmington, and Long Beach. Figure 4-1 provides a map of these zip code areas. The data presented in the following sections is based upon information from the year 2000 U.S. Census Bureau's national demographic and economic survey, which is considered the most comprehensive data at a national scale that is currently available.

Population. Table 4-1 provides the overall population profile of the four zip code areas of this analysis per U.S. Census Bureau 2000 data. As a frame of reference, population profiles for the City and County of Los Angeles are provided as well.

As shown in Table 4-1, the total population of the four zip codes that make up the study area was 213,478 for the year 1999. In comparison, the total population for the County and City of Los Angeles were 9,519,338 and 3,694,820, respectively, for the year 1999. Differences between the total male and female populations for either the study area or the City and County of Los Angeles do not vary substantially. For the year 1999, the community of Wilmington and the 90813 zip code area of the City of Long Beach contained both the youngest median age populations and the largest average household and family sizes of the four zip codes.

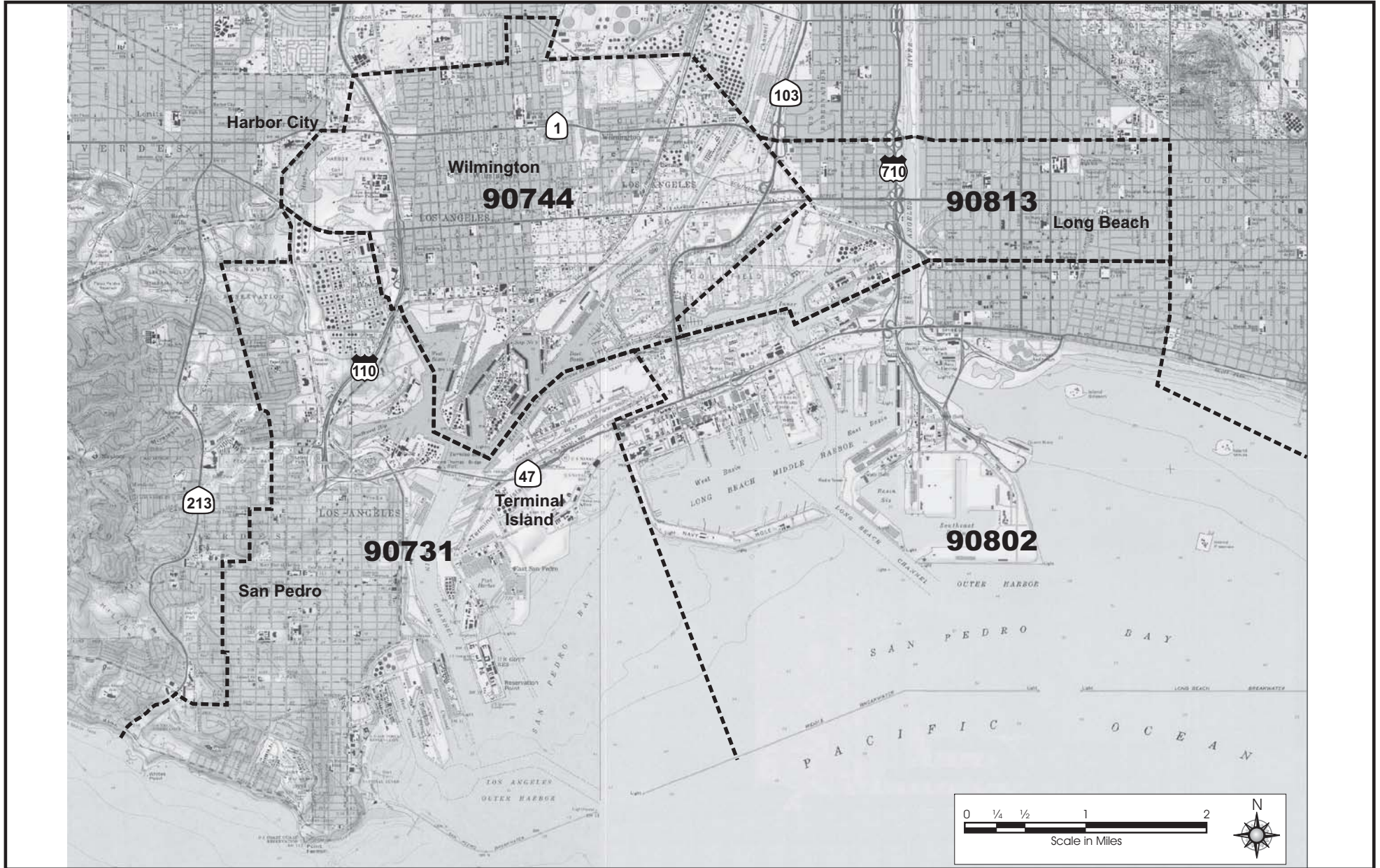


Figure 4-1
Zip Code Boundaries

Table 4-1 Overall Population Profile

Population Characteristic	County of Los Angeles	City of Los Angeles	Zip Code			
			90731 (San Pedro)	90744 (Wilmington)	90813 (Long Beach)	90802 (Long Beach)
Total Population	9,519,338	3,694,820	58,622	53,308	63,129	38,419
Male Population	4,704,105 (49.4%)*	1,841,805 (49.8%)*	29,571 (50.4%)*	27,188 (51%)*	32,062 (50.8%)*	20,106 (52.3%)*
Female Population	4,815,233 (50.6%)*	1,853,015 (50.2%)*	29,051 (49.6%)*	26,120 (49%)*	31,067 (49.2%)*	18,313 (47.7%)*
Median Age	32	31.6	32.2	26.2	23.6	32.2
Average Household Size**	2.98	2.83	2.63	3.8	3.73	2.0
Average Family Size**	3.61	3.56	3.33	4.18	4.28	3.2

* Percent of total population

** Average number of persons

Source: U.S. Census Bureau, American FactFinder, Census 2000 Demographic Profile Highlights.

<http://www.factfinder.census.gov/servlet>. Accessed September 9, 2005. (U.S. Census Bureau, 2005a).

Employment. Employment variables for the City and County of Los Angeles and the four zip code areas of the study area are presented in Table 4-2. Within the four zip codes of the study area employment and unemployment rates of the total employable population are not appreciably different than those of either the County or City of Los Angeles. The greatest number of workers is concentrated in the manufacturing and educational, health and social services labor force sectors, followed by the retail trade, transportation, warehousing and utilities, and arts, entertainment, recreation, accommodation and food services labor force sectors. Consistent with the County and City of Los Angeles' overall labor forces, the agriculture, forestry, fishing, hunting and mining labor force sector of the four zip code study area represents the smallest population of employed persons.

Median annual earnings for the County and City of Los Angeles and four zip codes of the study area are provided, by gender, in Table 4-3. The population of the 90731 zip code area (San Pedro) has individual annual earnings that are slightly greater than those for the County and City of Los Angeles. The remaining three zip code areas all have individual annual earnings, for either gender, that are less than those of the County and City of Los Angeles.

4. Socioeconomics

Table 4-2 Employment Characteristics

Employment Characteristic	County of Los Angeles	City of Los Angeles	Zip Code			
			90731 (San Pedro)	90744 (Wilmington)	90813 (Long Beach)	90802 (Long Beach)
Total Employable Population (Persons 16 Years of Age and Over)	7,122,525	2,809,852	43,852	36,092	40,236	30,943
• Population In Labor Force						
– Number of Persons	4,312,264	1,609,316	26,108	19,995	20,315	19,114
– Percent of Employable Population	60.5	60.2	59.5	55.4	50.5	61.8
• Population Not In Labor Force						
– Number of Persons	2,810,261	1,119,536	17,744	16,097	19,921	11,829
– Percent of Employable Population	39.5	39.8	40.5	44.6	49.5	38.2
Overall Labor Force Characteristics						
• Armed Forces	4,502	1,664	503	30	0	63
• Civilian Labor Force	4,307,762	1,688,652	25,605	19,965	20,315	19,051
• Total Number of Persons	4,312,264	1,690,316	26,108	19,995	20,315	19,114
Civilian Labor Force Characteristics						
• Employed Civilian Labor Force						
– Total Number of Persons	3,953,415	1,532,074	23,499	17,798	16,432	17,214
– Percent of Civilian Labor Force	91.8	90.7	91.8	94.0	90.3	94.1
• Unemployed Civilian Labor Force						
– Total Number of Persons	345,347	156,578	2,106	2,167	3,883	1,837
– Percent of Civilian Labor Force	8.2	9.3	8.2	6.0	9.7	5.9
Percent of Total Civilian Labor Force Employment By Industry						
• Agriculture, Forestry, Fishing, Hunting, Mining	0.3	0.2	0.6	0.6	0.4	0.3
• Construction	5.1	5.3	6.6	6.9	8.8	4.9
• Manufacturing	14.8	13.2	12.8	22.2	19.1	12.5
• Wholesale Trade	4.7	4.0	4.1	6.2	4.1	4.0
• Retail Trade	10.5	10.3	10.3	9.8	10.0	10.0
• Transportation, Warehousing, Utilities	5.0	4.0	11.3	8.5	4.9	6.1
• Information	5.4	7.0	2.5	2.2	1.7	4.2
• Finance, Insurance, Real Estate, Rental/Leasing	6.9	7.1	5.3	3.4	3.5	5.5
• Professional, Scientific, Management, Administrative, Waste Management	11.5	12.9	9.4	8.8	9.7	11.1
• Educational, Health, Social Services	18.3	17.3	18.4	12.4	12.2	21.0
• Arts, Entertainment, Recreation, Accommodation and Food Services	8.4	9.6	7.3	9.3	14.5	12.2
• Other (Except Public Administration)	5.9	6.9	7.3	7.9	9.1	5.6
• Public Administration	3.2	2.3	4.1	1.7	2.0	2.7
• Total	100	100	100	100	100	100

Source: U.S. Census Bureau, American FactFinder, Census 2000 Summary File 3 (SF3). DP-3. Profile of Selected Economic Characteristics. <http://www.factfinder.census.gov/servlet>. Accessed September 9, 2005.

Table 4-3 Median Annual Earnings

Earning or Income Attribute	County of Los Angeles	City of Los Angeles	Zip Code			
			90731 (San Pedro)	90744 (Wilmington)	90813 (Long Beach)	90802 (Long Beach)
Individual Earnings - Male: Full-time, year-round worker	\$36,299	\$31,880	\$37,048	\$26,047	\$18,800	\$30,816
Individual Earnings - Female: Full-time, year-round worker	\$30,981	\$30,197	\$30,773	\$21,255	\$16,227	\$29,298

Source: U.S. Census Bureau, American FactFinder, Census 2000 Summary File 3 (SF3). DP-3. Profile of Selected Economic Characteristics. <http://www.factfinder.census.gov/servlet>. Accessed September 9, 2005. (U.S. Census Bureau, 2005c).

Housing. Table 4-4 summarizes the housing unit totals for the City and County of Los Angeles and the four zip code areas of the analysis as provided by U.S. Census 2000 data. The 90731 and 90744 zip code areas (San Pedro and Wilmington, respectively) have homeowner and rental vacancy rates that do not vary substantially from those of the County and City of Los Angeles (less than four percent). The Long Beach zip codes (90813 and 90802) have homeowner and rental vacancy rates that are higher than those of the County and City of Los Angeles, with the 90813 (Long Beach) zip code having a substantially higher homeowner vacancy rate (11.1 percent). The 90744 and 90813 zip codes (Wilmington and Long Beach, respectively) have the largest average household sizes of the four zip codes of the study area (on average more than three people per household).

Table 4-4 Housing Characteristics

Housing Attribute	County of Los Angeles	City of Los Angeles	Zip Code			
			90731 (San Pedro)	90744 (Wilmington)	90813 (Long Beach)	90802 (Long Beach)
Total Housing Units	3,270,909	1,337,706	22,468	14,583	17,781	20,364
• Occupied Housing Units	3,133,774	1,275,412	21,344	13,966	16,469	18,758
- Owner-Occupied Units	1,499,744	491,882	6,691	5,389	2,209	3,692
- Renter-Occupied Units	1,634,030	783,530	14,653	8,577	14,440	15,066
• Vacant Housing Units	137,235	62,294	1,124	617	32	227
Homeowner Vacancy Rate	1.6%	1.8%	1.5%	1.2%	11.1%	5.2%
Rental Vacancy Rate	3.3%	3.5%	3.2%	3.6%	4.8%	5.4%
Average Household Size						
• Owner-Occupied Units	3.13 Persons	2.99 Persons	2.67 Persons	3.88 Persons	3.89 Persons	1.77 Persons
• Renter-Occupied Units	2.85 Persons	2.73 Persons	2.62 Persons	3.75 Persons	3.71 Persons	2.06 Persons

Source: U.S. Census Bureau, American FactFinder, Census 2000 Summary File 1 100-Percent Data, DP-1. Profile of General Demographic Characteristics. <http://www.factfinder.census.gov/servlet>. Accessed September 9, 2005. (U.S. Census Bureau, 2005b).

Fiscal. The Port is an Enterprise Fund of the City of Los Angeles and was created to promote and develop a deep-water port facility (Port of Los Angeles, 2004). As a proprietary and self-supporting entity, the Port is not supported by taxes; its revenue is derived from fees for shipping services such as dockage, wharfage, pilotage, storage, property rentals, royalties and other Port services (Port of Los Angeles, 2005a). The Port leases its property to tenants who then operate their own facilities (Port of Los Angeles, 2005a).

Within the Port are 26 terminals, including container and automobile terminals, dry bulk, liquid bulk and break-bulk facilities and Omni terminals. An Intermodal Container Transfer Facility (ICTF) and other intermodal facilities are also located on the Port's property, as are slips for pleasure craft, sport fishing boats and charter vessels (Port of Los Angeles, 2004).

The direct and indirect fiscal revenues of the Port are based on Port industries (industries and businesses involved in the moving and handling of maritime cargo), Port users (businesses that use the Port to receive imports or ship exports), and Port customers (retail and non-cargo businesses within and near the Port) (Port of Los Angeles, 2005b).

During its fiscal year 2004, the Port served over 80 shipping companies and agents; it handled the largest volume of containerized cargo of all U. S. ports, and ranked as the number one port in cargo value for U.S. waterborne foreign traffic (Port of Los Angeles, 2004). The Port's five top ranking trading partners for the calendar year 2004 included: China (\$68.8 billion); Japan (\$24.1 billion); Taiwan (\$10.8 billion); Thailand (\$6.7 billion); and, South Korea (\$5.6 billion) (Port of Los Angeles, 2005c). For the fiscal year 2004, the Port's total operating revenue was \$351.5 million, and its net income was \$90.9 million (Port of Los Angeles, 2005c).

As of 2004, the Port employed 764 people and was estimated to generate approximately 259,000 full- and part-time jobs regionally (Port of Los Angeles, 2005c). For the year 2004, the total wages in southern California that were either directly or indirectly generated by the Port were approximately \$8.4 billion (\$1 out of every \$23), and the State and local tax revenue generated in southern California due to Port operations was estimated at \$1.4 billion (Port of Los Angeles, 2005c). Approximately 70 percent of the regional direct, indirect, and induced fiscal benefits of the Port occur within Los Angeles County (Port of Los Angeles, 2005b).

International Trade

The international trade sector is one of the growth engines of Southern California and employment in this sector over the period 1980 through 2003 has almost tripled, growing at an average annual rate of 4.4 percent. Over the same time period, total non-farm employment grew at an average annual rate of 1.3 percent. It is estimated that approximately 475,000 jobs in Southern California are associated with international trade.

The Los Angeles Customs District (LACD) includes the Port of Los Angeles, Port of Long Beach, Port Hueneme, and Los Angeles International Airport. Of the total value of imports entering the LACD, over 80 percent are transported by vessels. In the case of China (ranked first as trading partner for imports), over 90 percent of goods by value enter through the ports of Los Angeles and Long Beach. In the case of Japan (second ranked origin of commodities), 83 percent enters through the ports and for Taiwan (third ranked) the proportion is 75 percent. In

the case of exports leaving the LACD, lower proportions of commodities (by value) are shipped through the ports with a greater share shipped by air. About 50 percent of goods (by value) leave through ports. Combined, the Port of Los Angeles and the Port of Long Beach rank as the third largest port complexes in the world after Hong Kong and Singapore.

Logistics Sector of the Economy

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

According to a study sponsored by SCAG, a number of factors important to companies have become especially costly in Southern California: workers compensation insurance, electrical energy, and housing (Economics and Politics, Inc. 2004).

For companies that have considerable locational freedom, costs in Southern California are not attractive to their remaining or expanding in the region. For many companies, however, proximity to customers (the general population) and other factors such as facilities (ports and airports) and skilled workforce (motion picture industry) are of overriding importance. These industries include the services sector, motion picture industry, and transportation and warehousing.

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

Between 1990 and 2003, the group of industries comprising the logistics sector was one of the few non-population-related sectors (i.e., services) of the Southern California economy that

provided significant job growth. Additionally, the 2003 pay level in logistics (\$45,314) exceeded that of manufacturing (\$43,871) and construction (\$40,439).

For more than the last decade, the nation's manufacturers and retailers have adopted "just-in-time" systems. This change in business practices has resulted in the distribution industry creating a series of large goods-holding centers, including in Southern California. Their location in Southern California is related to the fact that a high proportion of the nation's trade with Asian economies passes through the Port of Los Angeles and the Port of Long Beach. It is anticipated that the volume of this trade will continue to increase, especially with the projected use of post-Panamax container ships. These wide and deep-draft vessels can be accommodated on the West coast only at the ports of Los Angeles, Long Beach, and Seattle-Tacoma.

The recent Trade Impact Study prepared for the Alameda Corridor Transportation Authority and the Ports of Los Angeles and Long Beach (ACTA 2007) examined the economic impacts of the trade that passes through the San Pedro ports, by state, Congressional District, and for the nation. According to this study, state and local taxes generated throughout the nation from this trade activity grew from an estimated \$6 billion in 1994 to more than \$28 billion in 2005, of which \$6.7 billion was in California. From the ports, nationwide, the trade volume was about \$256 billion, of which \$62.5 billion was in California. From 1994 to 2005, the number of jobs associated with the trade activity generated by the Port of Los Angeles and Port of Long Beach tripled, going from 1.1 million jobs nationally in 1994 to 3.3 million jobs in 2005. In 2005, about 886,000 jobs within California were related to Port industries or Port users. This report included the economic contributions of the logistics industries located at the Ports of Los Angeles and Long Beach as well as wholesalers, distributors and retailers located off the Ports.

Port of Los Angeles

The Port of Los Angeles handled almost 7.3 million TEUs in fiscal year (FY) 2005, down slightly from FY 2004 but up considerably from 6.7 million in FY 2003. The top five containerized imports in 2004 were: furniture, apparel, toys and sporting goods, vehicles and vehicle parts, and electronic products. The top trading partners were China, Japan, Taiwan, Thailand, and South Korea. The top five containerized exports were wastepaper, synthetic resins, fabric (including raw cotton), animal feed, and metal scrap. Automobile shipments account for less than 2 percent of the value of the cargo that passes through the port. The total value of the cargo was \$225.8 billion in calendar year (CY) 2006. The Port of Los Angeles is one of the world's largest trade gateways, of which the economic contributions to the regional economy are substantial. The Port facilitates tens of billions of dollars in industry sales each year in the Southern California region. These sales translate into jobs, wages and salaries, and state and local taxes. It is estimated that the Port supports, directly and indirectly, 259,100 full-

and part-time jobs in Southern California and 1,353,500 jobs nationwide. The employment translates into \$8.6 billion annually in regional wages and salaries and \$1.4 billion annually in state and local taxes. Of the regional direct, indirect and induced benefits connected to the Port, approximately 70 percent occur within Los Angeles County. The major ways in which the Port contributes to the local and regional economies is through the following activities: port industries, port users, and port customers.

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

Port users are the biggest contributors to the economy. Port users are businesses that use the Port to receive imports or ship exports. Export manufacturers are among the major port users while others include local manufacturers who process imported, unfinished goods. Port users generate approximately \$12.1 billion and stimulate an additional \$5.5 billion in local industry indirect sales. Local "re-spending" by workers employed by port users and the industries they impact amount to approximately \$4.1 billion. Each dollar of spending for port user goods and services produces about 79 cents of additional industry sales in the five-county region.

Port customers are the retail and other non-cargo businesses in the Port. They are most important to communities near the Port as a source of jobs, recreation and specialty consumer goods. Port customers contribute about \$760 million to the local economy.

Direct jobs associated with port customers numbered about 6,400 or roughly half of the jobs actually located in the Port. For every one of these port customer jobs, nearly 1.7 additional jobs are created elsewhere in the five-county region.

4.3 Applicable Regulations

The CEQ Guidelines list economic and social factors as among the effects that should be analyzed when preparing an EIS (40 C.F.R. § 1508.8[b]). Section 40 C.F.R. § 1508.14 of the CEQ Guidelines clarifies that when an EIS is prepared, economic and social effects should be discussed when interrelated with natural or physical effects. Therefore, NEPA limits an EIS evaluation of social and economic effects to situations when they are directly related to a significant physical effect on the environment.

Effects analyzed under CEQA must be related to a physical change in the environment (CEQA Guidelines Section 15258[b]). Economic and social effects are not typically considered under

CEQA unless there are physical environmental effects. The analysis is therefore generally treated as optional; no specific State regulations under CEQA apply.

4.4 Impact Assessment

4.4.1 Methodology

To assess how construction and future development of the Proposed Action may affect socioeconomic attributes of the study area, existing information related to overall population and demographics, housing, employment and income, and fiscal data related to the Port was reviewed to establish the area's existing conditions. A summary of this information is provided in Section 4.2.

There are no established Federal, State or local thresholds of significance for the evaluation of socioeconomics. In lieu of established thresholds of significance, impacts of the Proposed Action were qualitatively assessed in respect to their potential to:

- SOCIO-1** Substantially change local employment.
- SOCIO-2** Displace substantial numbers of existing housing or persons (due to a project-related in-migration of needed employees), thereby necessitating the construction of replacement housing elsewhere.
- SOCIO-3** Substantially change revenue for local businesses.
- SOCIO-4** Substantially change public agency revenue.

This analysis draws upon information gained from a number of sources. They include (a) discussions with Port of Los Angeles environmental and planning and research staff; (b) site visits to communities in the vicinity of the Port (especially Wilmington, since it is the community closest to the proposed Project); (c) a review of selected Port-related and other - documents containing information relevant to the topic of environmental quality and blight; and (d) a review of City of Los Angeles plans and program information containing relevant data for the area.

4.4.2 Impacts

Alternative 1, Port Development and Environmental Enhancement, would consist of disposing dredged material at the following disposal sites: Berths 243-245; Northwest Slip; CSWH Expansion Area; Eelgrass Habitat Area; and LA-2. Alternative 2, Environmental Enhancement and Ocean Disposal, consists of placing dredge material at the following locations: CSWH Expansion Area; Eelgrass Habitat Area; the ARSSS; and LA-2. Construction activities associated with each alternative would consist of the same types of activities for the same

relative duration and would require the same amount of workers to implement. As such, the socioeconomic effects due to construction and development of Alternative 1 and Alternative 2 are essentially the same. Both alternatives would provide for completion of the Channel Deepening Project and, therefore, allow for increased Port efficiencies and related fiscal benefits.

As related to socioeconomics, the principal difference between Alternative 1 and Alternative 2 is that under Alternative 2 the CDF at Berths 243-245 and the new land area at the Northwest Slip would not be constructed. Therefore, improved operational efficiencies related to the Northwest Slip would not occur, and related benefits to local businesses and Port revenues would thus be less than those for Alternative 1 (Impacts SOCIO-3 and SOCIO-4). Because the other socioeconomic impacts of Alternative 1 and Alternative 2 would be essentially the same, they are addressed collectively below.

Alternative 1 and Alternative 2

Construction of Alternative 1 and Alternative 2 would include skilled and semi-skilled workers such as vessel crews, heavy construction equipment operators, truckers, construction site supervisors, and clerical workers. The construction-related workforce necessary for construction of Alternative 1 and Alternative 2 would be anticipated to remain the same as the one used for the existing Channel Deepening Project.

As with the existing Channel Deepening Project, the construction-related workforce associated with Alternative 1 and Alternative 2 would come from within the greater Los Angeles area. As indicated in Table 4-2, the existing regional and local construction-related labor force would be able to accommodate the dredge and disposal activities associated with Alternative 1 and Alternative 2; therefore, construction of either of these two alternatives would not substantially change local employment (Impact SOCIO-1).

Construction of Alternative 1 and Alternative 2 would not be anticipated to require a workforce from outside of the greater Los Angeles area. However, in the event that a small portion of the required construction work force chose to relocate to the area during construction, this relocation would likely be temporary in nature, and these workers would be anticipated to rent. As summarized in Table 4-4, Housing Characteristics, the communities surrounding the Port have rental vacancy rates ranging between 3.1 and 5.4 percent; therefore, the project area would be able to accommodate the temporary in-migration of construction related personnel and no displacement of existing housing or residences would occur. There would be no need for the construction of new/replacement housing (Impact SOCIO-2).

Within the Port's boundaries, construction-related activities associated with the Northwest Slip (Alternative 1) would temporarily disrupt and/or prohibit existing operation as a container

terminal. These temporary disruptions and preclusions could affect short-term, site-specific revenues (Impacts SOCIO-3). To reduce these impacts to a level of less than significant, mitigation measures MM LU-1 and MM LU-2, as outlined in Section 3.8 (Land Use), are recommended.

The Port is surrounded by a diverse range of commercial establishments including restaurants, retail establishments and other goods and services-related businesses. Construction of any alternative would result in local spending by contractors on personnel, materials, equipment, food, entertainment, and other miscellaneous purchases. The economic impact of this spending would be a beneficial impact by dollars spent on local businesses (Impact SOCIO-3).

During construction, operations of the Port would not be substantially affected. Therefore, no change in the Port's projected revenues or local agency revenues due to tax dollars generated by Port operations would occur (Impact SOCIO-4).

Alternative 3: No Action Alternative

Under the No Action Alternative, no construction activities related to the Proposed Action would occur. No new landfills or new shallow water areas would be created. Since all approved disposal sites have been completed, no further dredging would take place and the Channel Deepening Project would not be completed. There would be no change in existing socioeconomic conditions and no impacts related to Impacts SOCIO-1 through SOCIO-4 would occur.

4.4.3 Impact Determination

This section summarizes the conclusions of the impact analysis presented above in Section 4.4.2. Table 4-5 lists each impact identified for each alternative of the Proposed Action, along with the significance of each impact. Under Alternative 1 and Alternative 2, no impacts or beneficial impacts related to existing local or regional employment would occur (Impact SOCIO-1); neither alternative would result in impacts to local or regional housing (Impact SOCIO-2). Construction of Alternative 1 would temporarily disrupt or prohibit existing operations of the Northwest Slip, and possibly areas adjacent to the site, thereby impacting the revenues of affected leaseholders (Impact SOCIO-3). However, mitigation measures MM LU-1 and MM LU-2, as outlined in Section 3.8, Land Use, would reduce these impacts to a level of less than significant. No construction-related impacts on revenues associated with operations at the Northwest Slip would occur under Alternative 1 (Impact SOCIO-3). During construction, Alternative 1 and Alternative 2 would be expected to generate local revenues for the commercial establishments surrounding the Port, thereby creating a beneficial impact (Impact SOCIO-3). Construction of Alternative 1 and Alternative 2 would not impact (increase or decrease) agency revenues (Impact SOCIO-4).

Following construction, Alternative 1 and Alternative 2 would provide for greater Port efficiencies due to both channel deepening and development and operation of new and improved facilities. Increased Port efficiencies would benefit local and regional business revenues, as well as agency revenues (Impacts SOCIO-3 and SOCIO-4).

Under Alternative 3 no impacts related to either existing local and regional employment or housing would occur (Impacts SOCIO-1 and SOCIO-2). However, Alternative 3 would not provide for improved Port efficiencies except at Berths 100 and 144, which would increase Port-related transportation costs. These increased costs would negatively affect some Port-related businesses, resulting in less than significant impacts to regional and local business revenues (Impact SOCIO-3), as well as agency revenues (Impact SOCIO-4). Additionally, in comparison to Alternative 1 and Alternative 2, Alternative 3 would not provide for any additional Port-related development or increased efficiencies, and thus would not benefit (increase) new employment opportunities (Impact SOCIO-1), local and regional business revenues (Impact SOCIO-3), or agency revenues (Impact SOCIO-4).

Table 4-5 Impact Summary

Impact	Alternative 1	Alternative 2	Alternative 3
SOCIO-1: Substantially change local employment	NI	NI	NI
SOCIO-2: Displace substantial numbers of existing housing or persons, thereby necessitating the construction of replacement housing elsewhere	NI	NI	NI
SOCIO-3: Substantially change revenue for local businesses	SM	NI	NI
SOCIO-4: Substantially change public agency revenue	NI	NI	NI

S&U = Significant and Unavoidable SM = Significant but Mitigated
LTS = Less than Significant NI = No Impact

4.4.5 Mitigation Measures and Residual Impacts

Adverse socioeconomic impacts associated with Alternative 1 would be limited to dredge and disposal activities at the Northwest Slip. Implementation of mitigation measures MM LU-1 and MM LU-2 would reduce these impacts to less than significant levels. No additional mitigation measures specific to socioeconomics are required because no other short- or long-term adverse impacts would occur. As addressed in Section 3.8, Land Use, implementation of mitigation measures MMLU-1 and MM LU-2 would not result in any residual impacts.

4.4.6 Significant Unavoidable Adverse Impacts

No significant unavoidable adverse impacts would occur.

4.4.7 Mitigation Monitoring Plan

Please refer to Section 3.8 (Land Use) for the Mitigation Monitoring Plan associated with mitigation measures MM LU-1 and MM LU-2.