2.1 RELATED PROJECTS CONTRIBUTING TO CUMULATIVE EFFECTS

In accordance with CEQA (State CEQA Guidelines Section 15130 et seq.), this EIR includes an analysis of cumulative impacts. Per CEQA, "cumulative impacts" refers to two or more individual effects, which are considerable when combined, or which compound or increase other environmental impacts (State CEQA Guidelines Section 15355). In order to comply with CEQA, a cumulative scenario has been developed as a part of this EIR in order to identify projects that are reasonably foreseeable and that would be constructed or commence operation during the timeframe of activity associated with the proposed Project. This information will be used to determine if the impacts of the proposed Project have the potential to combine with similar impacts of the other projects, thereby resulting in cumulative effects.

The projects considered to be part of the cumulative scenario include past, present and probable future projects producing related or cumulative impacts, as shown in Figure 2.1-1 and summarized in Table 2.1-1. The analyses of cumulative effects for each issue area utilize this information, as appropriate, to estimate the potential for combined effects of the proposed Project and other projects in the vicinity. However, the geographic scope of analysis varies for each issue area and, therefore, only a subset of the listed projects may be considered in the cumulative analyses for various issue areas. The geographic scopes of analysis considered for each issue area are described at the beginning of the cumulative impact sections for individual issue areas in Chapter 3.

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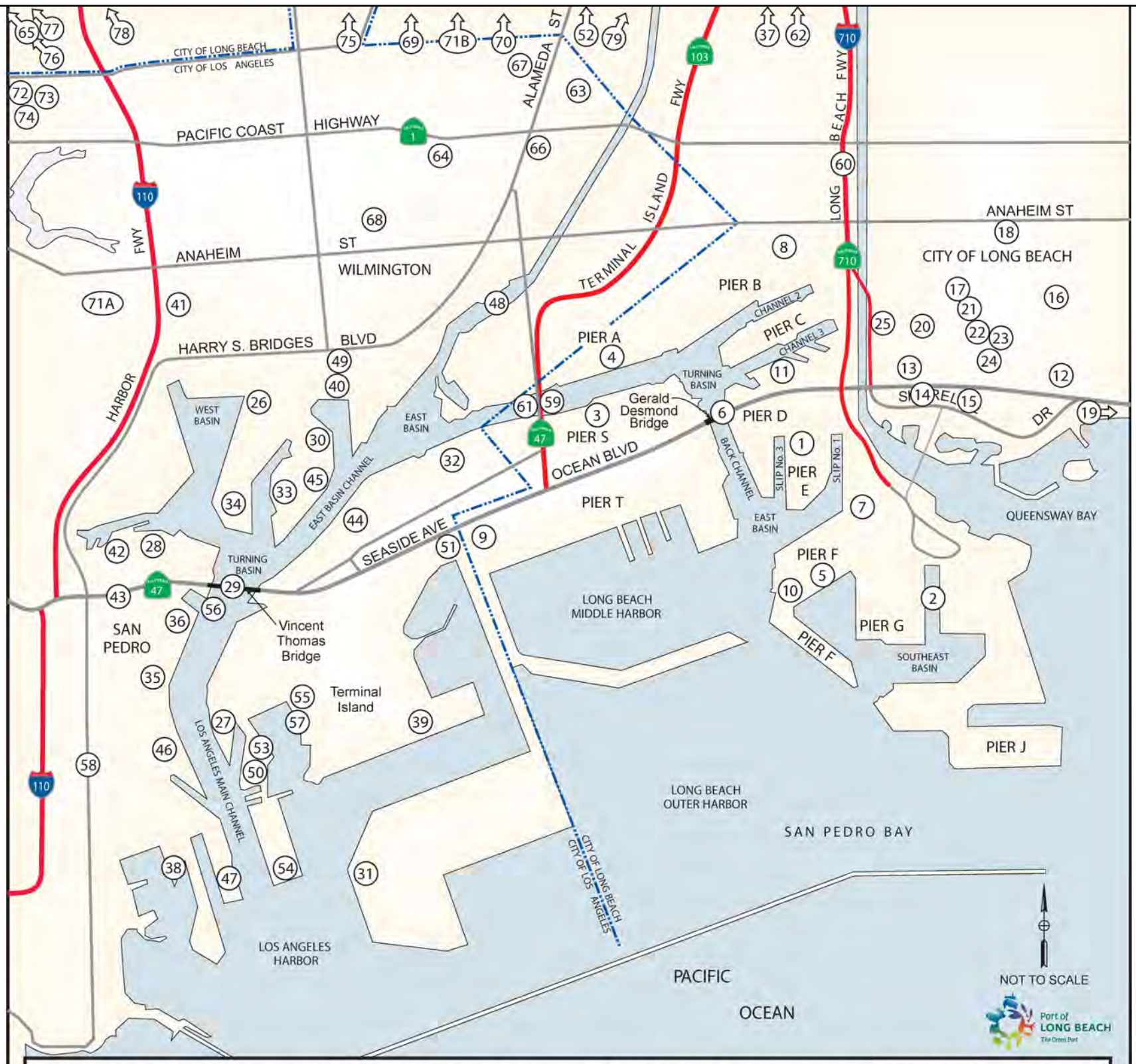

1. Middle Harbor Terminal Redevelopment, Port of Long Beach
2. Piers G & J Terminal Redevelopment Project, Port of Long Beach
3. Pier S Marine Terminal, Port of Long Beach
4. Pier A East, Port of Long Beach
5. Chemoil Marine Terminal, Tank Installation, Port of Long Beach
6. Gerald Desmond Bridge Replacement Project, Port of Long Beach and Caltrans/FHWA
7. Administration Building and Maintenance Facility Replacement Project, Port of Long Beach
8. Pier B Rail Yard Expansion, Port of Long Beach
9. Terminal Island Rail Projects, Port of Long Beach
10. Mitsubishi Cement Corporation Facility Modifications, Port of Long Beach
11. Polaris Aggregate Terminal, Port of Long Beach
12. Shoreline Gateway Project, City of Long Beach
13. West Gateway Redevelopment Project, City of Long Beach
14. Golden Shore Master Plan, City of Long Beach
15. Press-Telegram Mixed Use Development, City of Long Beach
16. Sierra Hotel Project, City of Long Beach
17. Long Beach Downtown Plan, City of Long Beach
18. 1235 Long Beach Blvd. Mixed-Use Project, City of Long Beach
19. Ocean Blvd. Project, City of Long Beach
20. LyonWest Gateway Residential Development, City of Long Beach
21. Pine-Pacific, City of Long Beach
22. Lofts at 3rd and Promenade, City of Long Beach
23. Broadway Block Development, City of Long Beach
24. Hotel Esterel, City of Long Beach
25. Promenade Master Plan, City of Long Beach
26. Berths 136-147 Marine Terminal, West Basin, Port of Los Angeles
27. Berths 226-236 (Evergreen) Container Terminal Improvements Project and Canners Steam Demolition, Port of Los Angeles
28. Berths 97-109, China Shipping Development Project, Port of Los Angeles
29. Channel Deepening Project, Port of Los Angeles
30. Berths 171-181, Pasha Marine Terminal Improvements Project, Port of Los Angeles
31. Plains All American Oil Marine Terminal, Pier 400, Port of Los Angeles
32. Berths 206-209 Interim Container Terminal Reuse, Port of Los Angeles
33. Ultramar Lease Renewal Project,
34. SSA Outer Harbor Fruir Facility Relocation, Port of Los Angeles Port of Los Angeles
35. POLA Charter School and Port Police Headquarters, San Pedro, Port of Los Angeles
36. San Pedro Waterfront Enhancements, Port of Los Angeles
37. SCIG, Port of Los Angeles
38. Cabrillo Way Marina, Phase II, Port of Los Angeles
39. Berth 302-305 Container Terminal Improvements, Port of Los Angeles
40. South Wilmington Grade Separation, Port of Los Angeles
41. "C" Street/Figueroa Street Interchange, Port of Los Angeles
42. I-110/SR 47 Connector Improvement Program, Port of Los Angeles
43. Port Transportation Master Plan, Port of Los Angeles
44. Berths 212-224 YTI Terminal Improvements, Port of Los Angeles
45. Berths 121-131 (Yang Ming) Container Terminal, Port of Los Angeles
46. San Pedro Waterfront Project, Port of Los Angeles
47. Westway Decommissioning, Port of Los Angeles
48. Consolidated Slip Restoration Project, Port of Los Angeles
49. Wilmington Waterfront Master Plan (Avalon Blvd. Corridor Project), Port of Los Angeles
50. Southwest Marine Demolition Project, Port of Los Angeles
51. Joint Container Inspection Facility, Port of Los Angeles/Port of Long Beach
52. Crescent Warehouse Company Relocation, Port of Los Angeles
53. Al Larson Redevelopment Project, Port of Los Angeles
54. City Dock Marine Research Institute, Port of Los Angeles
55. Port of Los Angeles Master Plan Update, Port of Los Angeles
56. USS Iowa Battleship, Port of Los Angeles
57. Pan-Pacific Fisheries Cannery Buildings Demolition Project, Port of Los Angeles
58. Pacific Corridors Redevelopment Project, San Pedro, Port of Los Angeles
59. Schuyler Heim Bridge Replacement and SR 47 Terminal Island Expressway, Port of Los Angeles
60. I-710 Major COrridor Study, Port of Los Angeles
61. Badger Bridge Expansion, Port of Los Angeles
62. ICTF Modernization and Expansion, ICTF
63. Tesoro Reliability Improvement and Regulatory Compliance Project, Community of Wilmington
64. Distribution Center and Warehouse, Community of Wilmington
65. Chemoil Terminals Corporation, Community of Wilmington
66. Ultramar Inc., Olympic Tank Farm, Community of Wilmington
67. WesPac Smart Energy Transport System Project, Community of Wilmington
68. Warren Oil WTU Central Facility and New Equipment Project, Community of Wilmington
69. BP Carson Refinery Safety, Compliance and Optimization Project, City of Carson
70. Crude Logistics Optimization Project, City of Carson
71. ConocoPhilips Los Angeles Refinery PM10 and NOx Reduction Projects, City of Carson
72. ConocoPhilips Refinery Tank Replacement Project, City of Carson
73. KinderMorgan Terminal Expansion, City of Carson
74. BP Logistics Project, City of Carson
75. Shell Oil Products U.S. CRPSP, City of Carson
76. Chevron Products Company El Segundo Refinery Product Reliability and Optimization Project, City of El Segundo
77. Chevron Products Company - El Segundo Refinery Heavy Crude Project, City of El Segundo
78. ExxonMobil Rule 1105.1 Compliance Project, City of Torrance
79. Paramount Refinery Clean Fuels Project, City of Paramount

0 1250 2500 5000
Scale in Feet

N

Figure 2.1-1
Related Projects

TABLE 2.1-1
RELATED PROJECTS

Number in Figure 2.1-1	Project Title	Project Description	Status (Project Timeframe)	Relevant Potential Cumulative Environmental Factors
Port of Long Beach				
1	Middle Harbor Terminal Redevelopment	Expansion of an existing marine container terminal. The Piers D, E, and F development project is located in the Middle Harbor area of the POLB. The project consolidates two existing container terminals into one 345-acre (140-ha) terminal. Construction includes approximately 54.6 acres (21.6 ha) of landfill, dredging, and wharf construction; construction of an intermodal rail yard; and reconstruction of terminal operations buildings.	Approved project. Construction underway (2010-2019).	Air Quality Transportation Biological Resources Water Quality & Hydrology Noise
2	Piers G & J Terminal Redevelopment Project	Redevelopment of two existing marine container terminals into one terminal in the Southeast Harbor Planning District area. The project will develop a marine terminal of up to 315 acres (127 ha) by consolidating portions of two existing terminals on Piers G and J.	Approved project. Construction underway (2005-2015).	Geology Groundwater and Soils Air Quality Biological Resources
3	Pier S Marine Terminal	Development of a 150-acre (61-ha) container terminal on Pier S and construction of navigational safety improvements to the Back Channel.	EIR being prepared.	Transportation Air Quality Noise
4	Pier A East	Conversion of 32 acres (13 ha) of existing auto storage area into container terminal uses.	Conceptual project.	Transportation Air Quality Noise
5	Chemoil Marine Terminal, Tank Installation	Construction of two petroleum storage tanks and associated relocation of utilities, and reconfiguration of adjoining marine terminal uses between Berths F210 and F211 on Pier F.	EIR to be prepared.	Transportation Air Quality Hazards
6	Gerald Desmond Bridge Replacement Project, POLB/ Caltrans/FHWA	Replacement or rehabilitation of the existing Gerald Desmond Bridge and adjacent roadway improvements.	EIR certified 2010.	Transportation Air Quality Biological Resources
7	Administration Building and Maintenance Facility Replacement Project	Replacement of the existing Port Administration Building and Maintenance Facility with a new facility on an adjacent site on Pier G.	Approved project. Construction pending.	Transportation Air Quality Noise
8	Pier B Rail Yard Expansion	Expansion of the existing Pier B Rail Yard in two phases, including realignment of the adjacent Pier B Street and utility relocation.	EIR being prepared (2012-2020).	Transportation Air Quality Noise

TABLE 2.1-1
RELATED PROJECTS

Number in Figure 2.1-1	Project Title	Project Description	Status (Project Timeframe)	Relevant Potential Cumulative Environmental Factors
9	Terminal Island Rail Projects	Construct rail improvements on Terminal Island, including a grade separation at Reeves Avenue and additional storage tracks.	EIR being prepared (2012-2015).	Transportation Noise
10	Mitsubishi Cement Corporation Facility Modifications	Facility modification, including the addition of a catalytic control system, construction of four additional cement storage silos, and upgrading existing cement unloading equipment on Pier F.	EIR to be prepared.	Air Quality
11	Eagle Rock Aggregate Terminal	Construction and operation of a sand, gravel, and aggregate receiving, storage, and distribution terminal on Pier D.	EIR being prepared (2009-2012).	Transportation Air Quality Noise
City of Long Beach				
12	Shoreline Gateway Project	Mixed-use development of a 35-story, 221-unit condominium tower with retail, commercial, and office uses located north of Ocean Boulevard, between Atlantic Avenue and Alamitos Avenue.	EIR certified in 2006. City Planning Dept. has no estimated construction start and completion year.	Transportation Air Quality
13	West Gateway Redevelopment Project	Redevelop nine existing parcels, including apartments, condominiums, and retail, on Broadway between Chestnut and Maine.	Under construction.	Air Quality
14	Golden Shore Master Plan	The proposed project would provide new residential, office, retail, and potential hotel uses, along with associated parking and open space.	NOP issued November 2008. Final EIR released January 2010. In process for entitlement. City Planning Dept. has no estimated construction start and completion year.	Aesthetic/Visual Air Quality Noise Transportation Water Quality Growth Inducing Cumulative Effects
15	Press-Telegram Mixed Use Development	Construction of two high-rise buildings on the 2.5-acre (1-ha) Press-Telegram site. The project would be a mixed-use development with 542 residential units, and 32,300 square feet (3,000 square meters) of office and institutional space.	Draft EIR prepared August 2006.	Air Quality Cumulative Effects Growth Inducing Minerals Noise Hazard Transportation Water Quality

TABLE 2.1-1
RELATED PROJECTS

Number in Figure 2.1-1	Project Title	Project Description	Status (Project Timeframe)	Relevant Potential Cumulative Environmental Factors
16	Sierra Hotel Project	Development of a 91,304-square-foot (8,482-square-meter), 7-story hotel structure with 140 rooms. Parking will be provided in the multi-level parking structure located across the street at the southwest corner of Cedar Avenue and Seaside Way.	EIR certified December 2005. EIR Addendum released May 2009. City Planning Dept. has no estimated construction start and completion year. On hold.	Air Quality Hazard Transportation
17	Long Beach Downtown Plan	Development standards and design guidelines for an expected increase in the density and intensity of existing Downtown land uses by allowing up to: (1) approximately 5,000 new residential units; (2) 1.5 million square feet of new office, civic, cultural, and similar uses; (3) 384,000 square feet of new retail; (4) 96,000 square feet of restaurants; and (5) 800 new hotel rooms.	Final EIR released November 2011.	Aesthetics Air Quality Cultural Resources Transportation Public Services Utilities
18	1235 Long Beach Blvd. Mixed-Use Project	The proposed project would include demolition of existing on-site uses and construction of a mixed-use (transit oriented) development that includes the construction of 3 buildings consisting of 170 residential condominium units, 186 senior (age-restricted) apartment units, and 42,000 sq. ft. of retail/restaurant floor area.	EIR Addendum released January 2008. Entitlements granted. City Planning Dept. has no estimated construction start and completion year.	Transportation Air Quality
19	Ocean Blvd. Project	The proposed project would include the demolition of existing structures, the development of 51 condominium units and the remodel of an existing building to maintain 11 motel units. The residential development would be four stories in height above street level and would have two levels of subterranean parking.	Notice of Intent to Adopt released August 2009. Entitlements granted. City Planning Dept. has no estimated construction start and completion year.	Transportation Air Quality
20	Lyon West Gateway Residential Development, Broadway at Magnolia Avenue and 4th Streets	Mixed-use project consisting of 291 rental apartments (265 market rate and 26 affordable) and 15,000 square feet of commercial space.	Construction underway.	Transportation Air Quality
21	Pine – Pacific, bounded by Pine and Pacific Avenues, and 3rd and 4th Streets	Phase 1 will consist of a 5-story residential project with 175 living units and 7,280 square feet of retail space. Phase 2 is slated as a 12-story mid-rise residential development with 186 units and 18,670 square feet of retail.	Approved project. Construction pending.	Transportation Air Quality

TABLE 2.1-1
RELATED PROJECTS

Number in Figure 2.1-1	Project Title	Project Description	Status (Project Timeframe)	Relevant Potential Cumulative Environmental Factors
22	Lofts at 3rd and Promenade	Mixed-use development project consisting of 104 rental homes and 13,550 square feet of first-floor retail space.	Construction underway.	Transportation Air Quality
23	Broadway Block Development, Broadway, Long Beach Boulevard, 3rd Street, and Elm Avenue	Mixed-use project consisting of an art center, residential units and commercial space.	Conceptual project.	Transportation Air Quality
24	Hotel Esterel, Promenade at Broadway	Seven-story, 165-room hotel with 8,875 square feet of retail space and 3,000 square feet of meeting space.	Construction underway.	Transportation Air Quality
25	Promenade Master Plan, between Shoreline Drive and 5th Street	Improvement, expansion and redesign of The Promenade. The Master Plan encompasses the gateways, hardscape, landscape, furniture, lighting and public art plazas along the 3 blocks between Ocean Boulevard and 3rd Street, as well as renovation of the amphitheater.	Construction underway.	Transportation Air Quality
Port of Los Angeles				
26	Berths 136-147 Marine Terminal, West Basin	Element of the West Basin Transportation Improvement Projects. Expansion and redevelopment of the TraPac Container Terminal to 243 acres, including improvement of Harry Bridges Boulevard and a 30-acre landscaped area, relocation of an existing rail yard and construction of a new on-dock rail yard, and reconfiguration of wharves and backlands (includes filling of the Northwest Slip, dredging, and construction of new wharves.)	Harbor Board of Commissioners certified EIR and approved project on December 6, 2007. Construction started in 2009 and ongoing through 2012.	Transportation Air Quality
27	Berths 226-236 (Evergreen) Container Terminal Improvements Project and Canners Steam Demolition	Proposed redevelopment of existing container terminal, including improvements to wharves, adjacent backland, crane rails, lighting, utilities, new gate complex, grade crossings, and modification of adjacent roadways and railroad tracks. Project also includes demolition of two unused buildings and other small accessory structures at the former Canner's Steam Plant in the Fish Harbor area of the Port.	On hold.	Transportation

TABLE 2.1-1
RELATED PROJECTS

Number in Figure 2.1-1	Project Title	Project Description	Status (Project Timeframe)	Relevant Potential Cumulative Environmental Factors
28	Berths 97-109, China Shipping Development Project	Development of the China Shipping Terminal Phase I, II, and III, including wharf construction, landfill and terminal construction, and backland development.	Harbor Board of Commissioners certified EIR and approved project on December 8, 2009. Construction started in 2009 and ongoing through 2013.	Transportation Air Quality
29	Channel Deepening Project	Dredging and sediment disposal. This project deepened the POLA Main Channel to a maximum depth of –53 ft mean lower low water (MLLW; lesser depths are considered as project alternatives) by approximately 4 were for up to 151 acres (61 hectares) of landfill biology, for new fill locations. The Additional Disposal Capacity Project would provide approximately 4 million cubic yards of disposal capacity needed to complete the Channel Deepening Project and maximize beneficial use of dredged material by constructing lands for eventual terminal development and provide environmental enhancements at various locations in the Port of Los Angeles.	Harbor Board of Commissioners certified EIR and approved project on April 29, 2009. Construction expected 2010-2012.	Biological Resources Hydrology & Water Quality Transportation Air Quality
30	Berths 171-181, Pasha Marine Terminal Improvements Project	Redevelopment of existing facilities at Berths 171-181 as an Omni (multi-use) facility.	Project EIR on hold.	Transportation Air Quality
31	Plains All American (formerly Pacific Energy) Oil Marine Terminal, Pier 400	Proposal to construct a Crude Oil Receiving Facility on Pier 400 with tanks on Terminal Island and other locations on Port property, with the preferred location being the former LAXT terminal, as well as construct new pipelines between Berth 408, storage tanks, and existing pipeline systems.	Harbor Board of Commissioners certified EIR and approved project on November 20, 2008. Construction expected 2012-2014.	Transportation Air Quality Biological Resources
32	Berths 206-209 Interim Container Terminal Reuse Project	Proposal to allow interim reuse of former Matson Terminal while implementing green terminal measures.	New EIR on hold.	Hydrology & Water Quality

TABLE 2.1-1
RELATED PROJECTS

Number in Figure 2.1-1	Project Title	Project Description	Status (Project Timeframe)	Relevant Potential Cumulative Environmental Factors
33	Ultramar Lease Renewal Project	Proposal to renew the lease between the Port of LA and Ultramar Inc., for continued operation of the marine terminal facilities at Berths 163-164, as well as associated tank farms and pipelines. Project includes upgrades to existing facilities to increase the proposed minimum throughput to 10 million barrels per year (mby), compared to the existing 7.5 mby minimum.	On hold.	Air Quality Hazards
34	SSA Outer Harbor Fruit Facility Relocation	Proposal to relocate the existing fruit import facility at 22nd and Miner to Berth 153.	On hold.	Transportation Air Quality
35	POLA Charter School and Port Police Headquarters, San Pedro	Proposal to lease property for the POLA Charter School and to construct a Port Police Headquarters and office. 330 S. Centre Street, San Pedro.	EIR certified August 2005. Construction started in 2009 and ongoing through 2011.	Transportation Air Quality
36	San Pedro Waterfront Enhancements Project	Project includes improving existing and development of new pedestrian corridors along the waterfront (4 acres), landscaping, parking, increased waterfront access from upland areas, and creating 16 acres of public open space.	MND approved April 2006. Construction from 2007 to 2012.	Transportation Air Quality
37	Southern California International Gateway Project (SCIG)	Construction and operation of a 157-acre dock rail yard intermodal container transfer facility (ICTF) and various associated components, including relocation of an existing rail operation.	DEIR released September 2011. Construction anticipated 2013-2015.	Transportation Air Quality
38	Cabrillo Way Marina, Phase II	Redevelopment of the old marinas in the Watchorn Basin and development of the backland areas for a variety of commercial and recreational uses.	EIR certified December 2, 2003. Construction started in 2009 and ongoing through 2012.	Transportation Air Quality
39	Berth 302-305 (APL) Container Terminal Improvements Project	Container terminal and wharf improvements project including a terminal expansion area and new berth on the east side of Pier 300. Currently includes 40 acres of fill that was completed as part of the Channel Deepening project (number 21 above).	Project EIR/EIS under preparation. NOP released July 2009. DEIR/EIS expected Summer 2011. Construction anticipated 2012-2014.	Transportation Air Quality Biological Resources

TABLE 2.1-1
RELATED PROJECTS

Number in Figure 2.1-1	Project Title	Project Description	Status (Project Timeframe)	Relevant Potential Cumulative Environmental Factors
40	South Wilmington Grade Separation	An elevated grade separation would be constructed along a portion of Fries Avenue or Marine Avenue, over the existing rail line tracks, to eliminate vehicular traffic delays that would otherwise be caused by trains using the existing rail line and the new ICTF rail yard. The elevated grade would include a connection onto Water Street. There would be a minimum 24.5-ft clearance for railcars traveling under the grade separation.	Conceptual planning. Caltrans approval obtained on Project Study Report. Current planning indicates summer 2011 completion.	Transportation Air Quality
41	C Street/ Figueroa Street Interchange	The C Street/Figueroa Street interchange would be redesigned to include an elevated ramp from Harry Bridges Boulevard to I-110 Freeway, over John S. Gibson Boulevard. There would be a minimum 15-ft clearance for vehicles traveling on John S. Gibson Boulevard. An additional extension would connect from Figueroa Street to the new elevated ramp, over Harry Bridges Boulevard.	Mitigated Negative Declaration under preparation. Construction expected 2013-2016.	Transportation Air Quality
42	I-110/SR-47 Connector Improvement Program	Program may include C Street/ I-110 access ramp intersection improvements, I-110 NB Ramp/John S. Gibson Boulevard intersection improvements, and SR-47 on- and off-ramp at Front Street. These projects would reduce delays and emissions in the I-110/SR-47 area and improve safety and access.	Mitigated Negative Declaration under preparation. Construction expected 2012-2015.	Air Quality Noise Visual Recreation
43	Port Transportation Master Plan	Port-wide transportation master plan for roadways in and around POLA facilities. Present and future traffic improvement needs are being determined, based on existing and projected traffic volumes. Some improvements under consideration include I-110/SR-47/Harbor Boulevard interchange improvements; south Wilmington grade separations; and additional traffic capacity analysis for the Vincent Thomas Bridge.	Conceptual planning completed by end of 2006.	Transportation Air Quality
44	Berths 212-224 (YTI) Container Terminal Improvements Project	Wharf modifications at the YTI Marine Terminal Project involves wharf upgrades and backland reconfiguration, including new buildings.	EIR/EIS to be prepared. NOP/NOI anticipated 2011. Construction expected 2013-2016.	Transportation Air Quality

TABLE 2.1-1
RELATED PROJECTS

Number in Figure 2.1-1	Project Title	Project Description	Status (Project Timeframe)	Relevant Potential Cumulative Environmental Factors
45	Berths 121-131 (Yang Ming) Container Terminal Improvements Project	Reconfiguration of wharves and backlands. Expansion and redevelopment of the Yang Ming Terminal.	EIR/EIS to be prepared. NOP/NOI anticipated 2011. Construction expected 2012-2015.	Transportation Air Quality
46	San Pedro Waterfront Project	The "San Pedro Waterfront" Project is a 5- to 7-year plan to develop along the west side of the Main Channel, from the Vincent Thomas Bridge to the 22nd Street Landing Area Parcel up to and including Crescent Avenue. Key components of the project include construction of a North Harbor Promenade, construction of a Downtown Harbor Promenade, construction of a Downtown Water Feature, enhancements to the existing John S. Gibson Park, construction of a Town Square at the foot of 6th Street, a 7th Street Pier, and a Ports O' Call Promenade, development of California Coastal Trail along the waterfront, construction of additional cruise terminal facilities, and construction of a historic fireboat. Display, relocation of the SS Lane Victory, extension of the Red Car line, and related parking improvements.	Harbor Board of Commissioners certified EIR and approved project on September 29, 2009. Construction expected 2010-2015.	Transportation Air Quality
47	Westway Decommissioning	Decommissioning of the Westway Terminal along the Main Channel (Berths 70-71). Work includes decommissioning and removing 136 storage tanks with total capacity of 593,000 barrels.	Remedial planning underway. Decommissioning anticipated in 2012.	Air Quality Hazardous Materials
48	Consolidated Slip Restoration Project	Remediation of contaminated sediment at Consolidated Slip at Port of Los Angeles. Remediation may include capping sediments or removal/disposal to an appropriate facility. Work includes capping and/or treatment of approximately 30,000 cu yds of contaminated sediments.	Remedial actions are being evaluated in conjunction with Los Angeles Regional Water Quality Control Board (RWQCB) and U.S. Environmental Protection Agency. No schedule established.	Air Quality Hazardous Materials
49	Wilmington Waterfront Master Plan (Avalon Blvd. Corridor Project)	Planned development intended to provide waterfront access and promoting development specifically along Avalon Boulevard.	Harbor Board of Commissioners certified EIR and approved project on June 18, 2009. Construction expected 2012-2014.	Transportation Air Quality

TABLE 2.1-1
RELATED PROJECTS

Number in Figure 2.1-1	Project Title	Project Description	Status (Project Timeframe)	Relevant Potential Cumulative Environmental Factors
50	Southwest Marine Demolition Project	Demolition of buildings and other small accessory structures at the Southwest Marine Shipyard.	DEIR released September 2006; FEIR on hold.	Air Quality
51	Joint Container Inspection Facility, Port of Los Angeles and Port of Long Beach	Construction and operation of a facility to be used to search and inspect random and suspicious containers arriving at the Ports of Los Angeles and Long Beach	Project on hold.	Transportation
52	Crescent Warehouse Company Relocation, Port of Los Angeles	Relocate the operations of Crescent Warehouse Company from Port Warehouses 1, 6, 9, and 10 to an existing warehouse at Berth 153. Relocate Catalina Freight operations from Berth 184 to same building at Berth 153.	On hold.	
53	Al Larson Redevelopment Project	Redevelopment and expansion of the Al Larson Marina.	EIR under preparation. Construction anticipated 2011-2013.	
54	City Dock Marine Research Institute	Up to 28-acre site for potential marine research at City Dock No. 1.	EIR under preparation. Construction anticipated 2012-2025.	
55	Port of Los Angeles Master Plan Update	Redevelopment of Fish Harbor, redevelopment of Terminal Island and consideration of on-dock rail expansion, and consolidation of San Pedro and Wilmington Waterfront districts.	Conceptual planning.	
56	USS Iowa Battleship	Permanent mooring of USS Iowa Navy Battleship at Berth 87 and construction of landside museum and surface parking to support 371,000 annual visitors.	Conceptual planning.	
57	Pan-Pacific Fisheries Cannery Buildings Demolition Project	Demolition of two unused buildings and other small accessory structures at the former Pan-Pacific Cannery in the Fish Harbor area of the POLA.	NOP released October 2005. Draft EIR released July 2006. Final EIR on hold.	
Community of San Pedro				
58	Pacific Corridors Redevelopment Project, San Pedro	Development of commercial/retail, manufacturing, and residential components. Construction underway of four housing developments and Welcome Park.	Project underway. Expected completion in 2032 according to Community Redevelopment Agency of Los Angeles.	Transportation Air Quality

TABLE 2.1-1
RELATED PROJECTS

Number in Figure 2.1-1	Project Title	Project Description	Status (Project Timeframe)	Relevant Potential Cumulative Environmental Factors
Alameda Corridor Transportation Authority and California Department of Transportation (Caltrans)				
59	Schuyler Heim Bridge Replacement and State Route (SR) 47 Terminal Island Expressway	ACTA/Caltrans project to replace the Schuyler Heim Bridge with a fixed structure and improve the SR-47/Henry Ford Avenue/Alameda Street transportation corridor by constructing an elevated expressway from the Heim Bridge to SR 1 (Pacific Coast Highway).	Project approved.	Transportation Air Quality
60	I-710 (Long Beach Freeway) Major Corridor Study	Develop multi-modal, timely, cost-effective transportation solutions to traffic congestion and other mobility problems along approximately 18 miles of the I-710, between the San Pedro Bay ports and SR 60. Early Action Projects include: a) Port Terminus: Reconfiguration of SR 1 (Pacific Coast Highway) and Anaheim Interchange, and expansion of the open/green space at Cesar Chavez Park. b) Mid Corridor Interchange: Reconfigurations Project for Firestone Boulevard Interchange and Atlantic/Bandini Interchange.	NOP/NOI released August 2008. DEIR/EIS under preparation.	Transportation Air Quality
61	Badger Bridge Expansion	Redevelopment of the existing Badger Avenue Rail Bridge.	Project on hold.	
ICTF Joint Powers Authority				
62	Intermodal Container Transfer Facility (ICTF) Modernization and Expansion	Modernize and expand the existing ICTF to increase capacity, modernize existing equipment, and rail yard operation methods,	Project EIR under preparation. Construction anticipated 2012-2014.	Transportation Air Quality Noise
Community of Wilmington				
63	Tesoro Reliability Improvement and Regulatory Compliance Project	Physical changes and additions to multiple process units and operations as well as operational and functional improvements within the confines of the existing Refinery, including replacing an existing cogeneration system with a new cogeneration system and replacing multiple, existing steam boilers with new equipment.	EIR certified April 10, 2009. Construction activities scheduled 2010-2012.	Air Quality Hazards Transportation
64	Distribution Center and Warehouse	135,000-ft^2 distribution center and warehouse on 240,000-ft^2 lot with 47 parking spaces at 755 East L Street, (at McFarland Avenue) in Wilmington.	No construction has started; lot is vacant and bare. LADOT Planning Dept. has no estimated completion year.	

TABLE 2.1-1
RELATED PROJECTS

Number in Figure 2.1-1	Project Title	Project Description	Status (Project Timeframe)	Relevant Potential Cumulative Environmental Factors
65	Chemoil Terminals Corporation	Constructing five 50,000-barrel tanks and two 20,000-barrel tanks for the storage of organic liquids such as ethanol, crude oil, gasoline, naphtha, cycle oils, marine and non-marine diesel oils, and residual fuel oils.	Currently under construction and will be ongoing for several years.	Air Quality Hazards Transportation
66	Ultramar Inc., Olympic Tank Farm	Relocate the entire operations from the Ultramar Marine Tank Farm in the Port of Los Angeles to the Olympic Tank Farm.	Construction of project expected to begin in 2010.	Air Quality Hazards
67	WesPac Smart Energy Transport System Project	Construct a jet fuel pipeline system to support airport operations at Los Angeles International Airport (LAX) and other airports in the western U.S.	Phase 1 is proposed to begin upon resolution of court case.	Air Quality Hazards
68	Warren Oil WTU Central Facility and New Equipment Project 625 E. Anaheim St., Wilmington	Make modifications to an existing oil production facility to remove and replace an existing flare, add a heater-treater, and add microturbines to generate electricity on-site.	Negative Declaration released April 15, 2009. Final Negative Declaration under preparation. Construction expected 3rd quarter 2010 through 2013.	Air Quality
City of Carson				
69	BP Carson Refinery Safety, Compliance and Optimization Project	Physical changes and additions to multiple process units and operations, as well as operational and functional improvements within the confines of the existing refinery.	Construction scheduled 2006 through 2009. Project is largely complete.	Air Quality Cumulative Effects Hazards Transportation
70	Crude Logistics Optimization Project	Construction and operation of two 260-foot-diameter (79.2-m) covered external floating roof tanks to store crude oil at the BP Carson Crude Terminal in Carson, California.	EIR certified March 2008.	Cumulative Effects Noise Hazards Transportation
71	ConocoPhillips Los Angeles Refinery PM_{10} and NO_X Reduction Projects	Proposed project will reduce PM_{10} and NO_X emissions at its existing Wilmington (58A) and Carson Plants (58B) through modifications to refinery units at both plants.	FEIR certified June 2007.	Aesthetics Air Quality Hydrology & Water Quality Transportation
72	ConocoPhillips Refinery Tank Replacement Project	ConocoPhillips operators are in the process of removing seven existing petroleum storage tanks and replacing them with six new tanks, four at the Carson Plant, and two new tanks at the Wilmington Plan.	Negative Declaration has been prepared.	Air Quality Hazards

TABLE 2.1-1
RELATED PROJECTS

Number in Figure 2.1-1	Project Title	Project Description	Status (Project Timeframe)	Relevant Potential Cumulative Environmental Factors
73	Kinder Morgan Terminal Expansion	Construction of 18 new, 80,000-barrel product storage tanks and one new, 30,000-barrel transmix storage tank with related piping, pumps, and control systems on the southwestern portion of the existing Carson Terminal Facility.	Construction activities for the KMEP project are expected to occur over a 10-year period.	Air Quality Hazards Noise Transportation
74	BP Logistics Project	Construction and operation of two 260-foot-diameter covered external floating roof crude oil storage tanks. The two crude oil storage tanks have a capacity of 500,000 barrels each, and will require related piping and process control systems.	Final EIR has been prepared and certified by City of Carson. Project on hold.	Air Quality Hazards
75	Shell Oil Products U.S. Carson Revitalization Project (CRP) Specific Plan (CRPSP)	Expansion of the Distribution Facility uses. Redevelopment of the site could result in up to ~83,000 sf of retail and 1.74 million sf of mixed industrial/business services.	Notice of Preparation sent to State Clearinghouse October 2010.	Air Quality
City of El Segundo				
76	Chevron Products Company El Segundo Refinery Product Reliability and Optimization Project	Modifications and additions at the existing El Segundo Refinery to increase the reliability, energy efficiency, and capacity of specific existing refinery processing equipment; allow the processing of a wider range of crude oils; and voluntarily reduce potential atmospheric emissions from existing pressure relief devices.	FEIR certified May 2009.	Air Quality Energy Hazards Hydrology & Water Quality Noise Transportation
77	Chevron Products Company - El Segundo Refinery Heavy Crude Project	Modifications to the Chevron Products Company (Chevron) El Segundo Refinery to enable the refinery to maintain or slightly increase its current production levels of saleable products and process more heavy crude oil.	FEIR certified August 2006. Addendum certified May 2007.	Air Quality
Cities of Torrance, Harbor City, and Lomita				
78	ExxonMobil Rule 1105.1 Compliance Project	Proposes modifications to the fluidized catalytic cracking unit at its Torrance refinery to comply with new PM_{10} and ammonia emission limits set by SCAQMD Rule 1105.1.	FEIR certified March 2007.	Air Quality
City of Paramount				
79	Paramount Refinery Clean Fuels Project	Project proposes improvements to produce reformulated gasoline and ultra low sulfur diesel for California markets.	Addendum to FEIR September 2007. FEIR certified April 2004.	Air Quality Hazardous Materials Transportation

2.2 RELATIONSHIP TO STATUTES, PLANS AND OTHER REQUIREMENTS

One of the primary objectives of the CEQA process is to ensure that a proposed project and alternatives are integrated with other applicable federal, State, and local environmental laws, regulations, ordinances, executive orders, plans, and similar requirements. Laws and regulations applicable to the environmental issue areas specifically addressed in this EIR are summarized in this section. Detailed discussion of these laws and regulations, including discussion of the project's consistency with applicable laws and regulations, is provided in the issue area analyses presented in Chapter 3. As described in Section 1.7, this EIR addresses potential impacts to the issue areas of Air Quality and Greenhouse Gas Emissions, as well as particular issues identified under Hazards and Hazardous Materials and Transportation and Traffic. Laws and regulations which are applicable to the project design and objectives are discussed in detail following Table 2.2-1.

TABLE 2.2-1
APPLICABLE STATUTES, PLANS, AND OTHER REQUIREMENTS

Resource Area	Applicable Regulation	Summary
Federal		
Air Quality	Clean Air Act	The basic elements of the act include the adoption of National Ambient Air Quality Standards (NAAQS) for major air pollutants, hazardous air pollutant standards, attainment plans, motor vehicle emission standards, stationary source emission standards and permits, acid rain control measures, stratospheric ozone protection, and enforcement provisions.
	Air Quality Management Plan	The EPA, in enforcing the mandates of the federal CAA, requires each state that does not attain NAAQS to prepare a plan detailing how these air quality standards will be attained.
Hazards and Hazardous Materials	Resource Conservation and Recovery Act	The goal of RCRA is the protection of human health and the environment, the reduction of waste, the conservation of energy and natural resources, and the elimination of the generation of hazardous waste as expeditiously as possible.
	Emergency Planning and Community Right-To-Know Act	This law was designated to help local communities protect public health, safety, and the environment from chemical hazards. EPCRA provides requirements for emergency release notification, chemical inventory reporting, and toxic release inventories for facilities that handle chemicals.
Global Climate Change	*Massachusetts v. EPA*	In April 2007, the U.S. Supreme Court held that GHG emissions are pollutants within the meaning of the Clean Air Act. In reaching its decision, the court also acknowledged that climate change results, in part, from anthropomorphic causes. (Massachusetts et al. Environmental Protection Agency 549 U.S. 497, 2007). The Supreme Court's ruling paved the way for the regulation of GHG emissions by USEPA under the Clean Air Act.
	Clean Air Act	Under the provisions of the CAA to protect public health and welfare, the USEPA has the authority to regulate GHGs should a finding be made that GHGs have the potential for adverse impacts.

TABLE 2.2-1
APPLICABLE STATUTES, PLANS, AND OTHER REQUIREMENTS

Resource Area	Applicable Regulation	Summary
State		
Air Quality	California Clean Air Act	The CCAA outlines a program to attain the CAAQS for O3, NO2, SO2, and CO by the earliest practical date. Since the CAAQS are often more stringent than the NAAQS, attainment of these more stringent CAAQS will require more emission reductions than what will be required to show attainment of the NAAQS
	Assembly Bill (AB) 1807 – Air Toxics Program	AB 1807 established California's Air Toxics Program, a two-phased program for the identification and control of air toxics. During the first phase (identification), the CARB and the Office of Environmental Health Hazard Assessment (OEHHA) prepare draft reports on exposure and health assessment. In the second phase (control), an assessment is conducted to determine the need for, and degree of, further controls.
	AB 2588 – Air Toxics "Hot Spots" Information and Assessment Act	AB 2588 is designed to provide information to state and local agencies and to the general public on the extent of airborne emissions from stationary sources and the potential public health impact of those emissions. The "Hot Spots" Act requires that OEHHA develop risk assessments guidelines for the "Hot Spots" Program (Health and Safety Code Section 44360(b)(2)).
	AB 2650	Under AB 2650, shipping terminal operators are required to limit truck-waiting times to no more than 30 minutes at the Ports of Long Beach, Los Angeles, and Oakland, or face fines of $250 per violation.
	Heavy Duty Diesel Truck Idling Regulation	This CARB rule prohibits heavy-duty diesel trucks from idling for longer than five minutes at a time, unless they are queuing, and provided the queue is located beyond 100 feet from any homes or schools.
	CARB Drayage Truck Regulation	This CARB rule requires trucks to meet engine emission requirements by a certain date, including reducing PM emissions by 85 percent and meeting 2007 engine emission standards.
	1998 South Coast Locomotive Emissions Agreement	To accelerate the implementation of Tier 2 locomotive engines in the SCAB, the CARB and the USEPA entered into an enforceable Memorandum of Understanding (MOU) in 1998 with two major Class 1 freight railroads in California, UP and BNSF.
	2005 CARB / Railroad Agreement	In 2005, the CARB entered into another MOU with UP and BNSF whereby these two railroads would mitigate DPM emissions from rail yard operations for the purpose of reducing pollutant impacts to local communities.
	California Diesel Fuel Regulations	In 2004, the CARB set limits on the sulfur content of diesel fuel sold in California for use in on-road and off-road motor vehicles.
	Measures to Reduce Emissions from Goods Movement Activities	The Goods Movement Plan proposes measures that would reduce emissions from the main sources associated with port cargo handling activities, including terminal equipment, trucks, and locomotives. In December of 2005 the CARB adopted the Regulation for Mobile Cargo Handling Equipment (CHE) at Ports and Intermodal Rail Yards, which requires the use of best available control technology (BACT) to reduce DPM and NOx emissions from mobile cargo-handling equipment at ports and intermodal rail yards.
	Statewide Portable Equipment Registration Program (PERP)	The PERP establishes a uniform program to regulate portable engines and portable engine–driven equipment units. Once registered in the PERP, engines and equipment units may operate throughout California without the need to obtain individual permits from local air districts, as long as the equipment is located at a single location for no more than 12 months.

TABLE 2.2-1
APPLICABLE STATUTES, PLANS, AND OTHER REQUIREMENTS

Resource Area	Applicable Regulation	Summary
Hazards and Hazardous Materials	Hazardous Waste Control Law (California Health and Safety Code, Chapter 6.5)	This statute is the basic hazardous waste law for California. The Hazardous Waste Control Law implements the federal RCRA cradle-to-grave waste management system in California. The program is administered by the DTSC.
	California Toxics Rule	This rule, as found in 40 CFR Part 131, establishes numeric criteria for priority toxic pollutants in inland waters as well as enclosed bays and estuaries.
Global Climate Change	AB 32 – California Global Warming Solutions Act of 2006	AB 32 instructs the CARB to adopt regulations that will reduce emissions from significant sources of GHG and establish a mandatory GHG reporting and verification program by January 1, 2008. AB 32 requires the CARB to adopt GHG emission limits and emission reduction measures by January 1, 2011, both of which are to become effective on January 1, 2012.
	Executive Order S 3 05	Executive Order S 3 05 calls for a reduction in GHG emissions to 1990 levels by 2020 and for an 80 percent reduction in GHG emissions by 2050. Executive Order S 3 05 also calls for the Cal/EPA to prepare biennial science reports on the potential impact of continued GCC on certain sectors of the California economy.
	California Senate Bill 97	Senate Bill 97 amends the CEQA statute to clearly establish that GHG emissions and the effects of GHG emissions are appropriate subjects for CEQA analysis. It directs the OPR to develop draft CEQA guidelines "for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions" by July 1, 2009, and directs the Resources Agency to certify and adopt the CEQA guidelines by January 1, 2010.
	Executive Order S 13 08	Executive Order S 13 08 aims to enhance California's management of potential climate effects from sea level rise, increased temperatures, shifting precipitation, and extreme weather events.
	California State Coastal Conservancy: Policy Statement on Climate Change	The California Climate Change Policy describes the concerns about the Coastal Conservancy's jurisdiction. Prior to the completion of The Sea Level Rise Assessment Report from the NAS, consistent with Executive Order S 13 08, the Conservancy will consider the following SLR scenarios in assessing project vulnerability and reducing expected risks and increasing resiliency to SLR: 1.2 feet by 2050 and 4.6 feet by 2100.
Local		
Air Quality	SCAQMD Rules	The SCAQMD develops the SCAQMD Rules and Regulations to regulate sources of air pollution in the SCAB; applicable rules are listed below. • SCAQMD Rule 401 – Visible. • SCAQMD Rule 402 – Nuisance. • SCAQMD Rule 403 – Fugitive Dust. • SCAQMD Rule 404 – Particulate Matter Concentration. • SCAQMD Rule 405 – Solid Particulate Matter – Weight. • SCAQMD Regulation XI – Source Specific Standards • SCAQMD Regulation XIII – New Source Review.
	POLB/POLA Switch Locomotive Modernization.	Pacific Harbor Line (PHL) entered into an agreement with POLB and POLA to replace its antiquated switch locomotive engines with cleaner engines that meet the Tier II locomotive standards described above under Federal Regulations.
	POLB Clean Trucks Program (CTP)	The POLB CTP requires drayage truck owners to scrap and replace about 16,000 polluting trucks working at the ports, with the assistance of a Port-sponsored grant or loan subsidy.

TABLE 2.2-1
APPLICABLE STATUTES, PLANS, AND OTHER REQUIREMENTS

Resource Area	Applicable Regulation	Summary
	Port of Long Beach Green Port Policy	The Green Port Policy serves as a guide for decision making and established a framework for environmentally friendly Port operations. The goal of the air quality program element of the POLB Green Port Policy is to reduce harmful air emissions from Port activities.
	San Pedro Bay Ports Clean Air Action Plan (SPBP CAAP)	The SPBP CAAP focuses on reducing emissions with two main goals: (1) reduce Port-related air emissions in the interest of public health, and (2) accommodate growth in trade. The SPBP CAAP includes specific emission control measures for all Port emission sources, including trains, trucks, and terminal equipment.
Traffic and Transportation	Los Angeles County Congestion Management Program	The CMP for Los Angeles County was developed in conformance with Proposition 111, the gas tax initiative approved by California voters in 1990. The 1993 program update includes a new element called the Countywide Deficiency Plan that establishes a partnership between the 88 cities in the County and the Los Angeles Metropolitan Transportation Authority.
Hazards and Hazardous Materials	Port of Long Beach Green Port Policy	The Port of Long Beach Green Port Policy is designed to reduce criteria pollutant, toxic air contaminants, and GHG emissions through implementation of a variety of programs designed to lower emissions and implement energy efficiency measures.
	POLB Risk Management Program	The RMP was required by the CCC as a means for judiciously managing, controlling, and directing proposed developments in order to prevent, insure, protect against, and minimize the risks of loss or significant adverse impacts, due to potential hazards within and surrounding the POLB.
Global Climate Change	SPBP CAAP	The SPBP CAAP focuses on reducing emissions with two main goals: (1) reduce Port-related air emissions in the interest of public health, and (2) accommodate growth in trade. The SPBP CAAP includes specific emission control measures for all Port emission sources, including trains, trucks, and terminal equipment.
	Greenhouse Gas Strategic Plan	In September 2008, the Port's BHC adopted a formal resolution establishing a framework for reducing GHG emissions. The framework outlined efforts that are already underway at the Port toward addressing the issue of climate change. The Port is developing a Greenhouse Gas Strategic Plan (GHG Plan). This plan will examine GHG impacts for all activities within the Harbor District and will identify strategies for reducing the overall carbon footprint of those activities.
	Climate Change Adaptation and Coastal Resiliency Strategic Plan	The POLB is developing a Port-wide Climate Change Adaptation and Coastal Resiliency Strategic Plan (CRS Plan) that will enable the Port to begin preparing for climate change and associated coastal hazards by providing a framework for the Port to incorporate adaptive measures relating to projected climate change into its policymaking and planning processes, environmental documents, infrastructure design, construction practices, and community outreach and education efforts.

As described in the introduction to Table 2.2-1, the laws and regulations summarized in this table are discussed in detail in the associated issue area sections presented in Chapter 3. Laws and regulations applicable to the project design and objectives are discussed below.

California Tidelands Trust

The California State Lands Commission (CSLC) has authority over California's granted public trust lands and ungranted public trust lands (i.e., tidelands, submerged lands, and navigable waters). The Tidelands Trust also conveyed public trust

lands, in trust, to several cities, counties, and governmental agencies, including five major ports. Pursuant to the Tidelands Trust, State and local tidelands grantees are administrators of their respective public trust lands and are required to manage tidelands through statute and implementation of the Public Trust Doctrine. According to the Tidelands Trust, public trust uses are generally limited to water dependent activities including commerce, fisheries, navigation, ecological preservation, and recreation.

The Port is operated under legal mandates of the Tidelands Trust, which identify the Port and its facilities as a primary economic/ coastal resource of the State and an essential element of the national maritime industry for promotion of commerce, navigation, fisheries, and harbor operations. According to the Tidelands Trust, Port-related activities should be water dependent and should give highest priority to navigation, shipping, and necessary support and access facilities to accommodate the demands of foreign and domestic waterborne commerce. The POLB Port Master Plan (PMP) provides the official planning policies, consistent with the Public Trust Doctrine, for the physical development of the tidelands and submerged lands conveyed and granted in trust to the POLB.

The proposed Project is evaluated for consistency with the PMP to ensure compliance with the Tidelands Trust. All Project construction and operation activities would occur in compliance with the PMP and other applicable requirements described in this section. The proposed Project site is located in the Terminal Island Planning District (District 4) of the POLB, where permitted uses include primary port facilities, port-related hazardous cargo facilities, navigation, federal uses, oil production, ancillary port facilities, utilities, and police headquarters and training academy (POLB, 2008). The proposed Project is a port-related use and is therefore consistent with the PMP. The proposed Project would not conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

California Coastal Act of 1976

The California Coastal Act (CCA) of 1976 recognizes the Port, as well as other California ports, as primary economic and coastal resources and as essential elements of the national maritime industry. Under the CCA, existing ports are encouraged to modernize and construct as necessary to minimize or eliminate the need for the creation of new ports. Water areas may be diked, filled, or dredged when consistent with a certified PMP and only for specific purposes, including the following: construction, deepening, widening, lengthening, or maintenance of ship channel approaches, ship channels, turning basins, berthing areas, and facilities required for the safety and accommodation of commerce and vessels to be served by the port facilities; and new or expanded facilities or waterfront land for port-related facilities.

The POLB has permitting authority for the CCC, through the CCC's approval of the PMP. As such, the Harbor Development Permit that would be issued by the POLB would be done so on behalf of the CCC; no further approval or permit from the CCC would be required.

Southern California Association of Governments Regional Plans

Southern California Association of Governments (SCAG) serves as the area-wide planning agency responsible for regional transportation planning, growth, and land use planning within southern California, as well as for developing the growth factors used in forecasting air emissions within the SCAB. SCAG prepares and maintains a Growth Management Plan (GMP), a Regional Housing Needs Assessment, and a Regional Mobility Plan, and contributes to the AQMP in cooperation with the SCAQMD. SCAG has developed a Regional Comprehensive Plan and Guide (RCPG), the RTP (2012-2035) and, in cooperation with SCAQMD, the AQMP. SCAG is applicable to the Proposed Action as relevant to the aforementioned plans.

Port of Long Beach Port Master Plan

The PMP addresses environmental, recreational, economic, and cargo-related issues in accordance with the CCA. Because of the dynamic nature of world commerce, many trade and transportation practices change quickly. Accordingly, the PMP has been written to encompass broad Port goals and specific projects, while recognizing and planning for change in cargo transport and requirements, throughput demand, available technology and equipment, and available lands for primary Port terminal development. The Port goals, objectives, policies, and statement of permitted uses guide future development within each Harbor Planning District. A finding of consistency with the PMP is required prior to any development within the Harbor District. The Harbor Development Permit (HDP) is the primary vehicle for evaluating Port projects and determining PMP compliance.

City of Long Beach General Plan

In the City of Long Beach General Plan, the Long Beach Harbor area falls within Land Use District (LUD) Number 12. This district is comprised of the existing freeways, Long Beach Harbor, and Long Beach Airport. The General Plan assumes the water and land use designations within the harbor area are separately formulated and adopted as the Specific Plan of the Long Beach Harbor (also known as the PMP, as amended). The General Plan indicates that the responsibilities for planning within legal boundaries of the harbor lie with the Harbor Commission. The project would be consistent with the City of Long Beach General Plan through compliance with the PMP, as amended.

City of Long Beach Municipal Code

The Long Beach Municipal Code (LBMC), as amended, codifies and publishes in consolidated form those ordinances of the city governing the establishment of certain offices and boards; the conduct of city government; organization to cope with disasters; fire prevention; police and traffic regulation; public safety; public welfare; public works; buildings and signs; prohibition of certain defined acts, and punishment for violation of code provisions; regulation, control, and licensing of businesses, trades, professions and other occupations; health and sanitation regulations; oil production; use of land in the city; municipal gas service and rates; regulation of city streets; operation of public facilities; and other matters of general interest (Ordinance C-5831 Section 1 (part) 1982).

Water Quality Control Plan – Los Angeles Regional Water Quality Control Board

The Water Quality Control Plan (Basin Plan) for the Los Angeles Regional Water Quality Control Board (Region 4) was adopted by in 1978 and updated in 1994. The Basin Plan designates beneficial uses of the water resources of the basin and describes water quality objectives, implementation plans, and surveillance programs to protect or restore designated beneficial uses. The Basin Plan is discussed in Section 3.3 (Hazards and Hazardous Materials) as relevant to contamination in the vicinity of the Proposed Action site.

Water Quality Control Policy – Enclosed Bays and Estuaries of California

In 1974, the California SWRCB adopted a water quality control policy that provides principles and guidelines to prevent water quality degradation and to protect the beneficial uses of waters of enclosed bays and estuaries, as identified in the applicable Basin Plan. Long Beach Harbor is considered to be an enclosed bay under this policy. Activities such as the discharge of effluent, thermal wastes, radiological waste, dredge materials, and other materials that adversely affect beneficial uses of the bay and estuarine waters are addressed by this policy. Waste discharge requirements developed by the RWQCB, as specified in the applicable Basin Plan, must be consistent with this policy. The Basin Plan which applies to the Proposed Action area is discussed above (see “Water Quality Control Plan – Los Angeles Regional Water Quality Control Board”).

3.1 AIR QUALITY AND HEALTH RISK

3.1.1 Environmental Setting

3.1.1.1 Area of Influence

The POLB is located in the San Pedro Bay within the South Coast Air Basin (SCAB) under the jurisdiction of the SCAQMD. Emissions from construction and operation of the proposed Project would affect air quality in the immediate Project area and the surrounding region.

The air quality area of influence for the proposed Project includes the SCAB, which consists of the urbanized areas of Los Angeles, Riverside, San Bernardino, and Orange Counties, and the ocean offshore of the South Coast Waters. The SCAB onshore area covers 6,000 square miles.

3.1.1.2 Setting

The following section describes the climate and meteorology of the Project area, the regulations that apply to the Project, criteria for determining the significance of impacts, the potential impacts associated with the Project, and the mitigation measures proposed to reduce these impacts.

Regional Climate and Meteorology

The climate of the SCAB is characterized as Mediterranean climate with warm, dry summers and cool winters with seasonally heavy precipitation that occurs primarily during the winter months. Summers typically have clear skies, warm temperatures, and low humidity. A monthly climate summary for the City of Long Beach was selected to characterize the climate of the study area. As described in Table 3.1-1, average summer (June-September) high and low temperatures in the study area range from 84°F to 61°F. Average winter (December-March) high and low temperatures in the study area range from 69°F to 46°F. The average annual precipitation is approximately 12.4 inches with over 78 percent occurring between December and March. Summers are very dry with four months averaging less than a half of an inch of precipitation. Little precipitation occurs during summer because a high-pressure cell blocks migrating storm systems over the eastern Pacific.

TABLE 3.1-1
LONG BEACH MONTHLY AVERAGE TEMPERATURES AND PRECIPITATION

	Temperature (ºF)		
Month	**Maximum**	**Minimum**	**Precipitation**
January	68	46	2.60
February	67	48	3.19
March	69	51	1.87
April	72	53	0.60
May	74	58	0.21
June	77	61	0.07
July	82	65	0.03
August	84	65	0.03
September	82	63	0.18
October	77	58	0.63
November	72	51	1.00
December	67	46	1.95

Source: WC, 2013

Winds across the Project area are an important meteorological parameter as they control both the initial rate of dilution and direction of pollutants. Winds blowing from the west are dominant during February and April, and the prevailing winds during March and summer (May through July) blow from the south. During August through January, dominant winds blow from the west-northwest (WRCC, 2011).

Air Pollutants and Monitoring Data

Air pollutants are defined as two general types: (1) "criteria" pollutants, representing six pollutants for which national and state health- and welfare-based ambient air quality standards have been established; and (2) toxic air contaminants (TACs), which may lead to serious illness or increased mortality even when present at relatively low concentrations. Generally, TACs do not have ambient air quality standards. The three TACs that do have ambient air quality standards (lead, vinyl chloride, and hydrogen sulfide) are not pollutants that are relevant to this Project.

Criteria Pollutants

The USEPA, CARB, and the local air districts classify an area as attainment, unclassified, or nonattainment depending on whether or not the monitored ambient air quality data shows compliance, insufficient data available, or non-compliance with the ambient air quality standards, respectively. The National and California Ambient Air Quality Standards (NAAQS and CAAQS) relevant to the Project are provided in Table 3.1-2; Table 3.1-3 summarizes the federal and State attainment status of criteria pollutants for the SCAQMD based on the NAAQS and CAAQS, respectively.

TABLE 3.1-2

NATIONAL AND CALIFORNIA AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Standards	National Standards	Health Effects
Ozone (O_3)	1-hour	0.09 ppm	—	Breathing difficulties, lung tissue damage
	8-hour	0.070 ppm	0.075 ppm	
Respirable particulate matter (PM10)	24-hour	50 µg/m^3	150 µg/m^3	Increased respiratory disease, lung damage, cancer, premature death
	Annual	20 µg/m^3	—	
Fine particulate matter (PM2.5)	24-hour	—	35 µg/m^3	Increased respiratory disease, lung damage, cancer, premature death
	Annual	12 µg/m^3	15.0 µg/m^3	
Carbon monoxide (CO)	1-hour	20 ppm	35 pm	Chest pain in heart patients, headaches, reduced mental alertness
	8-hour	9.0 ppm	9 ppm	
Nitrogen dioxide (NO_2)	1-hour	0.18 ppm	0.100 ppm [1]	Lung irritation and damage
	Annual	0.030 ppm	0.053 ppm	
Sulfur dioxide (SO_2)	1-hour	0.25 ppm	0.075 ppm [1]	Increases lung disease and breathing problems for asthmatics
	3-hour	—	0.5 ppm	
	24-hour	0.04 ppm	—	

Notes:

ppm = parts per million; µg/m^3 = micrograms per cubic meter; "—" = no standards

1 – The *new federal 1-hour NO_2 and SO_2 standards are based on the 98th and 99th percentile of daily hourly maximum values, respectively.*

Source: CARB, 2013a

TABLE 3.1-3
ATTAINMENT STATUS FOR THE SCAQMD

Pollutant	Attainment Status	
	Federal	**State**
Ozone	Extreme Nonattainment	Extreme Nonattainment
PM10	Serious Nonattainment	Nonattainment
PM2.5	Nonattainment	Nonattainment
CO	Attainment/Maintenance	Attainment
NO_2	Attainment/Maintenance	Nonattainment
SO_2	Attainment	Attainment

Source: CARB, 2013b; USEPA, 2013a

The POLB initiated operation of two air monitoring sites in September 2006 to collect ambient air pollutant and meteorological conditions within the Port region. The Port's stations are not part of SCAQMD's regional air quality monitoring stations, but rather reflect "localized" concentrations measurements in the Port region. The POLB air monitoring stations are located in the Inner Harbor area, near West Long Beach, and in the Outer Harbor area, in Gull Park located at the end of Navy Mole Road. The two monitoring stations were developed to expand on and compliment other regional air monitoring efforts. Data from the POLB stations are considered in context with the North Long Beach Monitoring Station for comparison purposes, and to ensure the use of representative ambient data. Table 3.1-4 presents the maximum pollutant levels measured within the POLB monitoring network from 2007 through 2011.

Ultrafine Particles

Traditionally, health concerns and air quality standards for particulates have been focused on respirable particulate matter (i.e., PM10) and fine particulate matter (i.e., PM2.5). However, recently there has been an increased level of interest in the smallest size fraction of particulate matter, referred to as ultrafine particles (UFP). UFP are generally defined as ambient air particles less than or equal to 0.1 µm in diameter (100 nanometers). Due to their small size and cumulative mass, UFP generally contribute a small fraction of the ambient concentrations of either PM10 or PM2.5 (it takes approximately 15,000 UFP to equal the mass of a single PM2.5 particle, and 1,000,000 UFP to equal the mass of a single PM10 particle). However, UFP are very numerous, particularly in urban atmospheres. For example, typical urban air contains 10,000 to 40,000 UFP/cm^3, while near highways there can be between 40,000 and 1,000,000 UFP/cm^3. UFP are not routinely measured in the United States, and there are no regulatory standards that address this category. The 2007 Air Quality Management Plan (AQMP) of the SCAQMD recommends that UFP issues be considered in PM and air toxics control strategies (SCAQMD, 2007a).

In the urban environment, motor vehicles are a major source of UFP, and for that reason they are found in high numbers near highways. Measurements have shown that there is a sharp drop in UFP within 100 to 300 meters downwind of freeways, due to particle growth and accumulation processes in the atmosphere after they have been emitted from vehicles. Other categories of internal combustion engines used in Port operations, such as trains and ships, may also be significant sources of UFP.

The high numbers of UFP found in the environment, especially in areas such as highways, have recently raised concerns about their health effects. There are two primary reasons for these concerns; particle concentrations are very localized and tend to exhibit large geographical and temporal variations. Current research is underway to better characterize emissions:

TABLE 3.1-4
BACKGROUND AMBIENT AIR QUALITY DATA

Pollutant	Averaging Time	Monitoring Station	Maximum Concentration (ppm or µg/m^3) [1]				
			2007	2008	2009	2010	2011
O_3	1-hour	Superblock Inner Harbor	0.093	0.091	0.069	0.089	0.065
		Gull Park Outer Harbor	0.100	0.091	0.072	0.094	0.081
		North Long Beach	0.099	0.093	0.089	0.101	0.074
	8-hour	Superblock Inner Harbor	0.057	0.068	0.055	0.070	0.055
		Gull Park Outer Harbor	0.070	0.056	0.064	0.073	0.062
		North Long Beach	0.073	0.074	0.067	0.084	0.062
PM10	24-hour	Superblock Inner Harbor	—	—	130.1	90.1	150.6
		Gull Park Outer Harbor	—	—	92.0	55.5	56.6
		North Long Beach	—	—	40.5	50.0	—
	Annual	Superblock Inner Harbor	50.2	47.6	52.1	40.6	49.5
		Gull Park Outer Harbor	38.9	35.1	35.4	23.6	26.3
		North Long Beach	33.3	27.9	25.0	20.0	—
PM2.5	24-hour	Superblock Inner Harbor	—	—	38.6	31.5	29.3
		Gull Park Outer Harbor	—	—	29.3	—	—
		North Long Beach	—	—	26.1	—	—
	Annual	Superblock Inner Harbor	17.5	19.1	17.3	9.4	10.4
		Gull Park Outer Harbor	15.5	15.6	14.1	—	—
		North Long Beach	14.4	—	13.3	—	—
CO	1-hour	Superblock Inner Harbor	4.7	4.4	4.7	4.4	4.1
		Gull Park Outer Harbor	2.8	7.6	3.3	2.7	3.2
		North Long Beach	3.3	19.3	3.1	4.0	3.2
	8-hour	Superblock Inner Harbor	3.4	3.4	3.3	2.6	3.4
		Gull Park Outer Harbor	2.3	2.4	2.4	2.1	2.7
		North Long Beach	2.6	5.8	3.1	2.1	2.3
NO_2	1-hour	Superblock Inner Harbor	0.123	0.135	0.095	0.101	0.089
		Gull Park Outer Harbor	0.097	0.140	0.097	0.082	0.076
		North Long Beach	0.107	0.337	0.070	0.070	0.070
	Annual	Superblock Inner Harbor	0.030	0.029	0.025	0.025	0.025
		Gull Park Outer Harbor	0.020	0.018	0.020	0.018	0.020
		North Long Beach	0.020	0.021	0.021	—	0.020
SO_2	1-hour	Superblock Inner Harbor	0.151	0.111	0.163	0.089	0.051
		Gull Park Outer Harbor	0.182	0.223	0.107	0.175	0.025
		North Long Beach	0.037	0.491	—	0.086	0.015
	24-hour	Superblock Inner Harbor	0.021	0.021	0.013	0.009	0.007
		Gull Park Outer Harbor	0.012	0.019	0.012	0.012	0.005
		North Long Beach	0.009	0.054	0.004	0.007	0.004
	Annual	Superblock Inner Harbor	0.005	0.005	0.003	—	—
		Gull Park Outer Harbor	0.004	0.004	0.003	—	—
		North Long Beach	0.003	0.003	0.001	—	—

Notes:
ppm = parts per million; µg/m^3 = micrograms per cubic meter; "—" = no standards
1 – Gaseous pollutant (ozone, NO_2, and CO) concentrations are shown in ppm and particulate (PM10 and PM2.5) concentrations are shown in µg/m^3.
Source: POLB, 2009; POLB, 2010; POLB, 2011; POLB, 2012

(1) Studies have shown that smaller particles, which tend to absorb higher fractions of trace metals and organic compounds because of their relatively high surface area, can be inhaled and deposited deeper into the lungs than larger particles and

(2) UFP can be more easily transported from the lungs into the body, potentially increasing exposure to these particles and contaminants adsorbed on the particles. Information on UFP is limited at this time and is an area of active research.

Secondary PM2.5 Formation

Primary particles are emitted directly into the atmosphere by fossil fuel combustion sources, windblown soil and dust, and sea spray. Secondary PM2.5 forms in the atmosphere by complex reactions of precursor emissions of gaseous pollutants, such as NO_x, SO_x, volatile organic compounds (VOCs), and ammonia (SCAQMD, 2007b). Secondary PM2.5 includes sulfates, nitrates, and complex carbon compounds.

Project-generated emissions of NO_x, SO_x, and VOCs would contribute to secondary PM2.5 formation some distance downwind of the emission sources. However, since it is hard to predict secondary PM2.5 formation from an individual project, the air quality analysis in this EIR focuses on the effects of direct PM2.5 emissions generated by the Project. This approach is consistent with the recommendations of the SCAQMD to only calculate directly emitted PM2.5 emissions (SCAQMD, 2006).

Toxic Air Contaminants

TACs are compounds that are known or suspected to cause adverse long-term (cancer and chronic) and/or short-term (acute) health effects. TACs are emitted from mobile sources, including diesel particulate matter (DPM); industrial processes and stationary sources, such as dry cleaners, gasoline stations, paint and solvent operations, and stationary fossil fuel-burning combustion. The SCAQMD estimates in the Multiple Air Toxics Exposure Study III (MATES-III) that over 80 percent of the background airborne air toxics risk in the SCAB is due to diesel exhaust (SCAQMD, 2008). Due to the prevalence of diesel-powered sources associated with operations at the San Pedro Bay ports, MATES-III identified that the ports area had the highest air toxics risks within the SCAB. DPM is a major air toxic concern for the proposed Project, therefore this section of the EIR focuses on the impacts of DPM caused by the Project. In addition to the risk from DPM, the exposure to elevated UFP emission also is known to cause a reduction in life span or premature death.

Atmospheric Deposition

The fallout of air pollutants to the surface of the earth is known as atmospheric deposition. Atmospheric deposition occurs in both a wet and dry form. Wet deposition occurs in the form of precipitation or cloud water and is associated with the conversion in the atmosphere of directly emitted pollutants into secondary pollutants such as acids. Dry deposition occurs in the form of directly emitted pollutants or the conversion of gaseous pollutants into secondary PM. Atmospheric deposition can produce watershed acidification, aquatic toxic pollutant loading, deforestation, damage to building materials, and respiratory problems.

Sensitive Receptors

The impact of air emissions on sensitive members of the population is a special concern. Sensitive receptor groups include children and infants, pregnant women, the elderly, and the acutely and chronically ill. According to SCAQMD guidance, sensitive receptor locations include schools, hospitals, convalescent homes, day care centers, and other locations where children, chronically ill individuals, or other sensitive persons could be exposed. In addition, this analysis includes residents as sensitive receptors.

The nearest sensitive receptors for the Project are residences located in San Pedro west of Harbor Boulevard, approximately 2.4 miles from the Project site. Additionally, there are several elementary schools, middle schools, and high schools within a six mile radius of the Project site. The closest schools are Port of Los Angeles High School and Cesar Chavez Elementary School, located approximately 2.6

miles west and 2.7 miles northeast of the Project site, respectively. The closest hospitals are San Pedro Peninsula Hospital and Tom Redgate Memorial Recovery Center, both of which are located approximately 4 miles west and northeast of the Project site, respectively.

3.1.1.3 Regulatory Setting

Sources of air emissions in the SCAB are regulated by the USEPA, CARB, and SCAQMD. In addition, regional and local jurisdictions play a role in air quality management. The role of each regulatory agency is discussed below.

Federal Regulations

The federal Clean Air Act (CAA) of 1963 and its subsequent amendments form the basis for the nation's air pollution control effort. The USEPA is responsible for implementing most aspects of the CAA. Basic elements of the act include the establishment of NAAQS for major air pollutants, hazardous air pollutant standards, attainment plans, motor vehicle emission standards, stationary source emission standards and permits, acid rain control measures, stratospheric ozone protection, and enforcement provisions.

The CAA delegates the enforcement of the federal standards to the states. In California, the CARB is responsible for enforcing air pollution regulations. In the SCAB, the SCAQMD has this responsibility.

State Implementation Plan

For areas that do not attain the NAAQS, the CAA requires the preparation of a State Implementation Plan (SIP), detailing how the State will attain and maintain the NAAQS within mandated timeframes. In response to this requirement, the SCAQMD and SCAG have developed air quality management plans (AQMPs). The focus of the 2003 AQMP was to demonstrate attainment of the federal PM10 standard by 2006 and the federal 1-hour O_3 standard by 2010, while making expeditious progress toward attainment of State standards (SCAQMD, 2003a). The 2003 AQMP also includes an NO_2 maintenance plan.

On June 11, 2007, the USEPA re-designated the SCAB from nonattainment to attainment for the CO 1-hour and 8-hour NAAQS. The USEPA also approved a SIP revision for the SCAB nonattainment area, stating that this area meets the CAA requirements for maintenance plans for CO. The USEPA made an adequacy finding and approved motor vehicle emission budgets, which are included in the maintenance plan. The USEPA also approved the California motor vehicle inspection and maintenance (I/M) program as meeting the low enhanced I/M requirements for CO in the South Coast region (USEPA, 2007).

The SCAQMD and SCAG, in cooperation with the CARB and the USEPA, have developed the 2007 AQMP for purposes of demonstrating compliance with the new NAAQS for PM2.5, the NAAQS for PM10, the 8-hour O_3 NAAQS, the 1-hour O_3 NAAQS and other air quality planning requirements. The 1-hour O_3 standard was revoked by the USEPA, but the SCAQMD is still tracking progress towards attainment of this standard. The SCAQMD Governing Board adopted the Final 2007 AQMP on June 1, 2007 (SCAQMD, 2007b).

Since it will be more difficult to achieve the 8-hour O_3 NAAQS compared to the 1-hour NAAQS, the 2007 AQMP contains substantially more emission reduction measures compared to the 2003 AQMP. The USEPA approved nearly all elements of the 2007 PM2.5 plan and the 2007 8-hour O_3 Plan in 2011.

During 2012 and 2013 the USEPA determined that the 1-hour ozone plan was inadequate and withdrew approval of the vehicle-miles-traveled (VMT) emissions offset demonstration for the 8-hour Ozone Plan. As a result, the District is required to submit new plan elements to demonstrate 1-hour and 8-hour ozone attainment.

The AQMD Governing Board approved the 2012 AQMP on December 7, 2012 (SCAQMD, 2012). This plan addresses the 1-hour and 8-hour Ozone Plan inadequacies identified by the USEPA and provides a 24-hour PM2.5 plan. However, this AQMP has not yet been approved by the USEPA, so it is not the applicable AQMP for CEQA review. Most recently, on March 22, 2013, the USEPA proposed approval of SCAQMD's

2010 Redesignation Request and Maintenance Plan. Final approval should occur sometime in the spring of 2013.

Currently, the 2003 AQMP is the applicable plan for PM10, and the 2007 AQMP is the applicable plan for ozone and PM2.5.

Emission Standards for Non-Road Diesel Engines

The USEPA has established a series of cleaner emission standards for new off-road diesel engines culminating in the Tier 4 Final Rule of June 2004. The Tier 1, Tier 2, Tier 3, and Tier 4 standards require compliance with progressively more stringent emission standards. Tier 1 standards were phased in from 1996 to 2000 (year of manufacture), depending on the engine horsepower category. Tier 2 standards were phased in from 2001 to 2006, and the Tier 3 standards were phased in from 2006 to 2008.

The Tier 4 standards complement the latest 2007 and later on-road heavy-duty engine standards by requiring 90 percent reductions in DPM and NO_x when compared against current emission levels. The Tier 4 standards are currently being phased in starting with smaller engines in 2008 until all but the very largest diesel engines meet NO_x and PM standards in 2015. These standards apply to construction and terminal equipment, but not to locomotives, which have separate emissions standards (which are discussed below)..

Emission Standards for Locomotives

In 1998, the USEPA adopted Tier 0 (1973-2001), Tier 1 (2002-2004), and Tier 2 (2005+) emission standards applicable to newly manufactured and remanufactured railroad locomotives and locomotive engines. These standards require compliance with progressively more stringent standards for emissions of VOC, CO, NO_x, and DPM. Although the Tier 2 standard results in over 40 and 60 percent reductions in NO_x and DPM compared to Tier 0, the infiltration of Tier 2 engines into the national fleet will occur slowly because of the long life of diesel locomotive engines.

On March 14, 2008, the USEPA adopted Tiers 3 and 4 emissions standards for all diesel line-haul, passenger, and switch locomotives that operate extensively within the United States, including newly manufactured locomotives and remanufactured locomotives that were originally manufactured after 1972 (USEPA, 2008). These standards would substantially reduce emissions from these sources, compared to the Tier 2 standards.

The finalized rule sets Tier 3 emission standards for new engines starting in 2008, and for existing locomotives and large marine diesel engines when they are remanufactured, starting in 2009. It sets Tier 4 standards, for newly built locomotives that reflect the application of high-efficiency after treatment technology, with phase-in starting in 2015. The USEPA also finalized new idle reduction requirements for newly built and remanufactured locomotives.

Non-Road Diesel Fuel Rule

In May 2004, the USEPA set sulfur limits for non-road diesel fuel, including locomotives. Under this rule, diesel fuel used by line-haul locomotives would be limited to 500 ppm starting June 1, 2007 and 15 ppm starting January 1, 2012 (USEPA, 2004), at which time it would be equivalent to sulfur content restrictions of the California Diesel Fuel Regulations (described below).

Emission Standards for On-Road Trucks

To reduce emissions from on-road, heavy-duty diesel trucks, the USEPA established a series of cleaner emission standards for new engines, starting in 1988. These emission standards regulations have been revised over time. The latest effective regulation, the 2007 Heavy-Duty Highway Rule, provides for reductions in PM, NO_x, and non-methane hydrocarbon emissions that were phased in during the model years 2007 through 2010 (USEPA, 2000).

State Regulations and Agreements

California Clean Air Act

In California, the CARB is designated as the responsible agency for all air quality regulations. The CARB, which became part of the California Environmental Protection Agency (Cal-EPA) in 1991, is responsible for implementing the requirements of the federal

CAA, regulating emissions from motor vehicles and consumer products, and implementing the California Clean Air Act of 1988 (CCAA). The CCAA outlines a program to attain the CAAQS for O_3, NO_2, SO_2, and CO by the earliest practical date. Since the CAAQS are often more stringent than the NAAQS, attainment of the CAAQS will require more emission reductions than what is required to demonstrate attainment of the NAAQS. Similar to the federal requirements, the State requirements and compliance dates are based on the severity of the ambient air quality standard violation within a region.

Assembly Bill (AB) 1807 – Air Toxics Program

AB 1807 established California's Air Toxics Program in 1983. The Air Toxics Program is a two-phased program for the identification and control of air toxics. During the first phase (identification), the CARB and the Office of Environmental Health Hazard Assessment (OEHHA) prepare draft reports on exposure assessment and health assessment. The draft reports are distributed for public review and comment. Comments can be made in writing or at public workshops. The report is then submitted to the independent scientific review panel (SRP), which reviews the reports for scientific accuracy and submits its findings to the CARB. The SRP is a nine-member group of professionals with backgrounds in disciplines such as medicine, atmospheric science, statistics, and toxicology. The SRP members are appointed by the Governor or the State legislature. At a public hearing, the Board decides whether to list the substance as a TAC.

Once the CARB identifies a substance as a TAC, the CARB begins the second phase (control) of California's TAC program. In this phase, an assessment is conducted to determine the need for, and degree of, further controls. As in the identification phase, public outreach is an essential element in the development of a control plan and any control measures. The CARB works with districts and holds numerous public workshops and individual meetings with stakeholders in an open public process. If appropriate, each air toxic control measure is then adopted by the CARB at a public hearing.

AB 2588 – Air Toxics "Hot Spots" Information and Assessment Act

AB 2588, enacted in 1987, is designed to provide information to state and local agencies and to the general public on the extent of airborne emissions from stationary sources and the potential public health impact of those emissions. The "Hot Spots" Act requires that OEHHA develop risk assessments guidelines for the "Hot Spots" Program (Health and Safety Code Section 44360(b)(2)). In addition, the "Hot Spots" Act specifically requires OEHHA to develop a "likelihood of risks" approach to health risk assessment. The "Hot Spots" Act requires stationary sources of TACs to prepare facility-wide health risk assessments in accordance with OEHHA guidelines, and to notify the public in the event of a potential health risk. The "Hot Spots" Act also establishes criteria for requiring implementation of risk reduction measures for high-risk facilities.

AB 2650

AB 2650 became effective on January 1, 2003. Under AB 2650, shipping terminal operators are required to limit truck-waiting times to no more than 30 minutes at the Ports of Long Beach, Los Angeles, and Oakland, or face fines of $250 per violation. Collected fines will be used to provide grants to truck drivers to replace and retrofit their vehicles with cleaner engines and pollution control devices. A companion piece of legislation (AB 1971) was passed in September 2004 that would ensure that the intent of AB 2650 is not circumvented by allowing trucks with appointments to wait inside terminal gates.

Heavy Duty Diesel Truck Idling Regulation

This CARB rule became effective February 1, 2005 and prohibits heavy-duty diesel trucks from idling for longer than five minutes at a time, unless they are queuing, and provided the queue is located beyond 100 feet from any homes or schools (CARB, 2006a).

CARB Drayage Truck Regulation

This CARB rule became effective December 3, 2009. The regulation requires trucks to meet engine emission requirements by a certain date. Under Phase 1, by December 31, 2012,

all trucks must reduce PM emissions by 85 percent and must meet 2007 engine emission standards. The Drayage Truck Regulation also requires trucks to be registered in the Drayage Truck Registry.

1998 South Coast Locomotive Emissions Agreement

To accelerate the implementation of Tier 2 locomotive engines in the SCAB, the CARB and the USEPA entered into an enforceable Memorandum of Understanding (MOU) in 1998 with two major Class 1 freight railroads in California, UP and BNSF. This MOU requires UP and BNSF to accelerate the introduction of the Tier 2 standard locomotives into the SCAB fleet and to achieve average emissions equivalent to the Tier 2 NO_x standard (5.5 grams per brake horsepower-hour for line-haul locomotives and 8.1 gram per brake horsepower for switch locomotives) by 2010. This program was designed to achieve a 65 percent reduction in NO_x emissions by 2010. The MOU applies to both line-haul (freight) and switch locomotives operated by the railroads (CARB, 2005a).

2005 CARB/Railroad Statewide Agreement

In 2005, the CARB entered into another MOU with UP and BNSF whereby these two railroads would mitigate DPM emissions from rail yard operations for the purpose of reducing pollutant impacts to local communities. The MOU proposes to (1) phase out non-essential idling and install idling reduction devices, (2) identify and expeditiously repair locomotives that smoke excessively, and (3) maximize the use of 15 ppm sulfur diesel fuel (CARB, 2005b).

California Diesel Fuel Regulations

In 2004, the CARB set limits on the sulfur content of diesel fuel sold in California for use in on-road and off-road motor vehicles (CARB, 2004). Harbor craft and intrastate locomotives were originally excluded from the rule, but were later included by a 2004 rule amendment (CARB, 2005c). Under this rule, diesel fuel used in motor vehicles except harbor craft and intrastate locomotives has been limited to 500-ppm sulfur since 1993. The sulfur limit was reduced to 15-ppm beginning on September 1, 2006. Diesel fuel used in harbor craft in the SCAB also was limited to 500 ppm sulfur starting January 1, 2006 and was lowered to 15-ppm sulfur on September 1, 2006. Diesel fuel used in intrastate locomotives (switch locomotives) was limited to 15-ppm sulfur starting on January 1, 2007.

Measures to Reduce Emissions from Goods Movement Activities

In April 2006, the CARB approved the Emission Reduction Plan for Ports and Goods Movement in California (CARB, 2006b). The Goods Movement Plan proposes measures that would reduce emissions from the main sources associated with port cargo handling activities, including terminal equipment, trucks, and locomotives.

In December of 2005 the CARB adopted the Regulation for Mobile Cargo Handling Equipment (CHE) at Ports and Intermodal Rail Yards, which requires the use of best available control technology (BACT) to reduce DPM and NO_x emissions from mobile cargo-handling equipment at ports and intermodal rail yards (CARB, 2005d). Beginning January 1, 2007, the regulation requires that newly purchased, leased, or rented CHE be equipped with either a 2007 or newer on-road engine, a Tier 4 off-road engine, or the cleanest verified emissions control system which reduces DPM by 90 percent and NO_x by at least 70 percent for yard tractors. For non-yard tractors cargo handling equipment, the requirements include currently verified technologies that reduce DPM by 85 percent.

On December 7, 2007, the CARB approved proposed regulations to reduce emissions from heavy-duty drayage trucks (trucks committed to container cargo transport) at ports and intermodal rail yards. This regulation includes an accelerated phase-out of existing vehicles to trucks that meet 2007 emission standards by 2014 (CARB, 2007).

In March 2010, the CARB published *Proposition 1B: Goods Movement Emission Reduction Program Guidelines for Implementation*, which is designed to fund qualifying projects that reduce emissions and health risks. In February and March, 2011, Guidelines for Heavy Duty Diesel Trucks and Equipment Project Specifications and Supplemental

Procedures for Ships at Berth and Cargo Handling Equipment Projects were published.

Statewide Portable Equipment Registration Program (PERP)

The PERP establishes a uniform program to regulate portable engines and portable engine–driven equipment units (CARB, 2005e). Once registered in the PERP, engines and equipment units may operate throughout California without the need to obtain individual permits from local air districts, as long as the equipment is located at a single location for no more than 12 months.

Local Regulations and Agreements

The SCAQMD is primarily responsible for planning, implementing, and enforcing federal and State ambient standards within this portion of the SCAB. As part of its planning responsibilities SCAQMD prepares Air Quality Management Plans and Attainment Plans as necessary based on the attainment status of the air basins within its jurisdiction. The SCAQMD is also responsible for permitting and controlling stationary source criteria and air toxic pollutants as delegated by the USEPA.

Through the attainment planning process, the SCAQMD develops the SCAQMD Rules and Regulations to regulate sources of air pollution in the SCAB (SCAQMD, 2007a). The applicable SCAQMD rules to the Project are listed below.

SCAQMD Rule 401 – Visible Emissions. This rule prohibits discharge of air contaminants or other material, which are as dark or darker in shade as that designated No. 1 on the Ringelmann Chart or obscure an observer's view.

SCAQMD Rule 402 – Nuisance. This rule prohibits discharge of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public; or that endanger the comfort, repose, health, or safety of any such persons or the public; or that cause, or have a natural tendency to cause, injury or damage to business or property.

SCAQMD Rule 403 – Fugitive Dust. The purpose of this rule is to control the amount of PM entrained in the atmosphere from man-made sources of fugitive dust. The rule prohibits emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area to be visible beyond the emission source's property line. During Project construction, best available control measures identified in the rule would be required to minimize fugitive dust emissions from proposed earth-moving and grading activities. These measures would include site watering as necessary to maintain sufficient soil moisture content.

Additional requirements apply to operations on a property with 50 or more acres of disturbed surface area, or for any earth-moving operation with a daily earth-moving or throughput volume of 5,000 cubic yards or more three times during the most recent 365-day period. These requirements include submittal of a dust control plan, maintaining dust control records, and designating a SCAQMD-certified dust control supervisor.

SCAQMD Rule 404 – Particulate Matter Concentration. This rule sets concentration limits for PM based on the volume of release and would apply to the Project's grain handling emissions sources.

SCAQMD Rule 405 – Solid Particulate Matter – Weight. This rule sets emissions limits based on process weight throughput and would apply to the Project's grain handling emission sources.

SCAQMD Regulation XI – Source Specific Standards. This regulation is composed of several dozen individual rules, most of which are not applicable to this Project. Specific rules that may be applicable include:

- Architectural coating Rule 1113 that limits the VOC content of paints applied to various surfaces that would be applicable to any construction painting operation;
- Rule 1155 that establishes monitoring/ recordkeeping/performance requirements for particulate matter control devices, such as the project's proposed baghouses/filters; and
- Rule 1166 that set requirements to control emissions from excavating, grading, handling and treating VOC-contaminated soils that

may be encountered during project construction. This Project site has an existing land use covenant (Covenant) due to the presence of known contamination and all activities related to the proposed site will have to follow the requirements of this Covenant. Soil testing and analysis is currently underway and the results of that study will define the necessary remediation and disposal requirements to be completed during site construction, including the determination of whether any construction activities would trigger Rule 1166 applicability. Additional description of the Covenant and the existing site conditions related to hazardous materials are provided in Section 3.3 (Hazards and Hazardous Materials). However, regardless of any requirements or limitations in the Covenant, the Project must comply with all applicable parts of Rule 1166.

SCAQMD Regulation XIII – New Source Review. This regulation requires the permitting of new stationary sources and requires the use of BACT to control criteria pollutant emissions and requires offsetting emissions, other than CO, if they are over four tons per year. The Project's grain handling and emissions control equipment would be subject to this rule and would be required to meet BACT requirements, but the controlled grain handling PM10 emissions are estimated to be below the emissions offset trigger. The proposed Project site (IR Sites 3 and 4) and the TTI Container Terminal site may be determined by SCAQMD to constitute a single stationary source for the purposes of air quality permitting. The TTI Container Terminal site, however, appears to only have one emergency standby engine generator permitted by SCAQMD and emergency standby equipment is exempt from offset emission balances. Therefore, the potential that both sites are considered together for SCAQMD air quality permitting should not impact the emissions offset requirements for the proposed Project. The BACT requirements of this rule should ensure compliance with less restrictive regulations such as Rules 404 and 405 that also apply to the stationary sources of this Project.

In addition to the applicable SCAQMD rule requirements, the POLB has approved emission control measures for various Port emissions sources, including locomotives and drayage trucks. The following summarizes the POLB approved applicable emission reduction measures.

POLB/POLA Switch Locomotive Modernization. Pacific Harbor Line (PHL) entered into an agreement with POLB and POLA to replace its antiquated switch locomotive engines with cleaner engines that meet the Tier II locomotive standards described above under Federal Regulations. PHL replaced its entire fleet of older locomotives with 16 USEPA Tier 2 locomotives in 2008. This agreement is equivalent to CAAP Measure RL1, as discussed below. In addition, PHL has begun operating six Tier 3–equivalent non-road engine–equipped "genset" locomotives. A 1-year demonstration of a liquid natural gas locomotive was conducted from early 2008 through early 2009. In 2010, PHL and the ports entered into a third amendment to their operating agreements to further upgrade the Tier 2 switch locomotive fleet to meet Tier 3-plus standards by the end of 2011.

POLB Clean Trucks Program. On February 19, 2008, the POLB approved the POLB version of the Clean Trucks Program developed with the POLA and created as part of the CAAP. The POLB Clean Trucks Program requires that all drayage trucks serving the Port to meet 2007 USEPA emissions standards by January 2012 through a series of progressive bans.

Port of Long Beach Green Port Policy

In November 2004, the BHC directed Staff to develop a policy that would build on the existing Healthy Harbor Program to encompass wide-ranging environmental goals. In January 2005, the BHC adopted the Green Port Policy, which serves as a guide for decision making and established a framework for environmentally friendly Port operations. The goal of the air quality program element of the POLB Green Port Policy is to reduce harmful air emissions from Port activities (POLB, 2005).

San Pedro Bay Ports Clean Air Action Plan

As a means to implement the Green Port Policy, the POLB, in conjunction with the POLA, and with the cooperation of SCAQMD,

CARB, and the USEPA, adopted the San Pedro Bay Ports (SPBP) Clean Air Action Plan (CAAP) on November 20, 2006 (POLA/POLB, 2006) and adopted an updated CAAP in November 2010 (POLA/POLB, 2010). The SPBP CAAP is a sweeping plan aimed at significantly reducing the health risks posed by air pollution from all port-related emissions sources, including ships, trains, trucks, terminal equipment, and harbor craft. The SPBP CAAP proposes to implement near-term measures largely through new lease agreements, the CEQA/NEPA process, and tariffs. The plan proposes hundreds of millions of dollars in investments by the POLB, the POLA, the SCAQMD, the State, and port-related industry to reduce Port-wide emissions.

The 2006 CAAP was a 5-year action plan that highlighted the near-term goals, emissions reductions, and budgetary needs for fiscal years 2006 through 2011. Consistent with each port's air quality program goals, the 2006 CAAP focused primarily on reducing health risks to the local communities and reducing emissions of DPM, NO_x, and SO_x. Additionally, implementation of the CAAP will help achieve the goal of reducing atmospheric deposition for purposes of water quality protection. The CAAP (and future Project conditions) will reduce air pollutants that generate both acidic and toxic compounds deposition.

The SPBP CAAP 2010 Update identified three categories of major enhancements: (a) Measure changes, (b) San Pedro Bay Standards (SPBS), and (c) CAAP progress tracking. The SPBS includes a health risk reduction standard with the goal of reducing the population-weighted cancer risk of port-related DPM emissions by 85 percent in highly impacted communities located proximate to Port sources and throughout residential areas in the POLB region. The San Pedro Bay Standards also include a 72 percent reduction in DPM by 2014, and a 77 percent reduction in DPM by 2023. Adoption of the SPBS is a statement of the Ports' commitments to significantly reduce the air quality impacts from Port operations.

CAAP measure changes include updating of the CAAP measures to include information on the implementation details and measurable results for programs that have been developed or improved since the original CAAP was adopted and updating of measures to reflect regulatory changes. The most significant changes to CAAP measures in the CAAP Update include adoption of a new measure (OGV5), which seeks to maximize the early introduction and preferential deployment of vessels with cleaner engines that meet the new IMO NO_x standard, and adoption of an updated measure (RL3) that reflects new locomotive engine standards promulgated by the USEPA.

In addition, the CAAP also includes a goal to move toward carbon-free and electric technologies in port operations, and to demonstrate such technologies through the ports' Technology Advancement Program. In July 2011, the POLB and the POLA prepared a technical report, "Roadmap for Moving Forward with Zero Emission Technologies at the Port of Long Beach and Port of Los Angeles," that describes the criteria and process used to evaluate the technical and programmatic viability of near-term and longer-term actions for implementation of zero emissions technologies for drayage of cargo over short- and medium-haul distances, in-terminal container handling equipment, and the use of rail-related zero emission technologies on a regional scale within the SCAB.

The original CAAP was published in November of 2006, prior to the establishment of the SPBS. In the absence of the SPBS, the progress and effectiveness of the plan were forecasted through 2011 by estimating the growth in emissions due to anticipated cargo activity increases and then applying the effectiveness of the various control measures. In the CAAP Update, ongoing CAAP progress and effectiveness will be measured against the SPBS, which consist of reductions as compared to 2005 published emission inventories.

The Port uses several methods to measure progress toward the goals of its air quality program. These methods include (1) initiation of ambient air monitoring at locations within the inner and outer harbor areas, and (2) development of emission inventories of Port operations for years 2002, 2005, 2006, and subsequent annual updates. These efforts allow the Port, the community, and regulators

to assess the progress of air quality programs and determine the best use of resources to address air quality problems.

This EIR analysis assumes Project compliance with the SPBP CAAP Update because such compliance is mandatory, as implemented through lease requirements. The Port negotiates and signs environmentally friendly "green" leases with terminal customers that will have positive environmental effects in the future. These "green" leases require strict environmental compliance that is above requirements by State and federal law. As a landlord port, leases are the primary mechanism for the Port to implement its environmental initiatives, including the SPBP CAAP. Project mitigation measures applied to reduce air emissions and public health impacts are largely consistent with, and in some cases exceed, the emission-reduction strategies of the SPBP CAAP Update.

3.1.1.4 Existing Conditions

The 17.6-acre Project site includes two vacant parcels: an 11.6-acre parcel west of the DOD fuel depot, where the main grain handling facility would be located, and is the project site for Alternatives 2 and 3; and a 6-acre parcel east of the DOD fuel depot, where the rail yard would be located (only applicable to the proposed Project). Recent ambient air quality data for the area, including Gull Park Outer Harbor, which is located at the end of the Mole, is contained in Table 3.1-4.

3.1.2 Impacts and Mitigation Measures

The following analysis considers the air quality impacts that would occur from the Project and alternatives. Section 3.1.3 of this EIR also evaluates the cumulative air quality impacts that would occur from proposed Project construction and operation activities in combination with existing or reasonably foreseeable future projects.

For purposes of this EIR, the evaluation of significance under CEQA is determined by comparing impacts from the Project or its alternatives to the CEQA Baseline existing conditions, which for this Project corresponds to a zero emissions baseline.

3.1.2.1 Significance Criteria

The following thresholds were used in this EIR to determine the significance of Project air quality impacts. These criteria are based on CEQA thresholds recommended by the SCAQMD (SCAQMD, 2013), including the SCAQMD published localized thresholds of significance (LST) that are used to determine impacts on ambient air quality for off-site sensitive receptors.

Construction Impacts

Project construction would produce significant air quality impacts under the following circumstances:

AQ-1: The Project results in construction-related emissions that exceed any of the following SCAQMD daily thresholds of significance:

- 75 pounds of VOCs;
- 550 pounds of CO;
- 100 pounds of NO_x;
- 150 pounds of SO_x or PM10;
- 55 pounds of PM2.5.

AQ-2: Project construction results in off-site ambient air pollutant concentrations that exceed any of the SCAQMD thresholds.

Operation Impacts

Project operations would produce significant air quality impacts under the following circumstances:

AQ-3: Project operation emissions exceed any of the following SCAQMD daily thresholds of significance:

- 55 pounds of VOCs, NO_x, or PM2.5;
- 550 pounds of CO;
- 150 pounds of SO_x or PM10.

AQ-4: Project operations result in off-site ambient air pollutant concentrations that exceed any of the SCAQMD thresholds.

AQ-5: Project operations expose the public to significant levels of TACs. The determination of significance is based on the following:

- Maximum Increment Cancer Risk greater than or equal to 10 in 1 million (10×10^{-6}).
- Non-cancer (chronic or acute) Hazard Index greater than or equal to 1.0 (Project increment).
- Cancer burden greater than 0.5.

AQ-6: Project operations conflict with or obstruct implementation of an applicable AQMP.

3.1.2.2 Methodology

Air pollutant emissions from the proposed construction and operation activities were calculated using the most current SCAQMD website and USEPA emission factors and methods, then compared to the thresholds identified in Section 3.1.2.1 to determine their significance. For impacts that exceed a significance criterion, mitigation measures have been applied to reduce impacts to the extent feasible.

This EIR air quality analysis assumes that the Project would comply with all applicable CAAP measures. Project-specific mitigation measures applied to reduce air emissions and public health impacts are largely consistent with, and in some cases exceed, the emission-reduction strategies of the CAAP.

Construction Emissions

The Project's construction would involve excavation/grading, and the construction of grain rail unloading and product receiving facilities, storage facilities, container loading facilities, and temporary container storage areas. Construction emissions would result from the use of construction equipment and trips generated by construction workers and heavy haul trucks, and from earthmoving activities and paved road travel that would cause fugitive dust emissions. Construction activities would generate emissions of criteria air pollutants VOCs, NO_x, CO, PM10, PM2.5, and sulfur oxides and DPM, a TAC.

Equipment usage and scheduling data needed to calculate emissions for proposed construction activities were obtained from the applicant. Construction-related emissions are calculated using the following:

- On-road and off-road emission factors from the SCAQMD CEQA website for the year 2013, excepting controlled heavy-heavy duty truck emission factors derived from CARB's EMFAC2007 model for trucks that meet CAAP Drayage Truck requirements;
- Off-road engine emission control assumptions for Tier 3 engines, and other emissions factor derivation assumptions provided in the SCAQMD Air Quality Analysis Guidance Handbook (SCAQMD, 1993; SCAQMD, 2013) with engine activity factors adjusted to OFFROAD 2011 values; and
- USEPA AP 42 (USEPA, 2013b) emission factor calculations for fugitive dust.

For more information on the construction emissions calculation methodology, assumptions, and the detailed calculations, please refer to Appendix A.

Operation Emissions

Operation emissions would result from railroad line-haul and railcar switching, the controlled handling of grain, on-site off-road and on-road mobile equipment use, and off-site trips of on-road vehicles including heavy truck trips and employee commuting. The following conservative assumptions were used to calculate the reasonably foreseeable maximum daily and annual operation emissions and assure that the impacts were not underestimated:

- Unit trains haul 12,996 tons of grain per trip from the Midwest, using BNSF Railway or UP Railroad rail lines, where the line-haul distance in California is estimated to be 346 miles and within the SCAB is estimated to be 109 miles. There would be a total of 215 railroad round trips (2.8 million tons of grain/DDGS) a year and one in-bound train and one out-bound train are assumed for reasonably foreseeable maximum daily emissions.
- Train trips require railcar switching activities (applies only to Alternative 2), part of which would be completed by the railroad companies (BNSF/UP) and part by the on-Port rail operator (PHL).
- Railcar staging for unloading would be completed by a smaller (2,000 hp) yard locomotive.

- Rail emissions will decrease over time as older locomotive engines are replaced with newer engines meeting current and future USEPA Tier-level requirements. However, the emissions assume the expected conditions occurring in the first year of operation (2015), which is an assumption that the third party (BNSF/UP) locomotives meet USEPA Tier 2 emission limits, and that the PHL switching and yard locomotives would use USEPA Tier 3 engines.
- Grain unloading for the proposed Project (Alternative 1) would be contained in a building and vented to a baghouse. Grain unloading for Alternative 2 (Reduced Project Alternative) and Alternative 3 (Trucking Alternative) is assumed to be choke fed with no further control.
- The grain storage, conveying, and container loading activities would be contained, vented, and the grain dust would be controlled using baghouses that meet SCAQMD BACT requirements (0.005 grain/scf BACT emissions limit).
- There would be no open storage of grain and all grain handling emissions sources would be controlled, in the order of grain handling flow, as follows:

Grain Handling Emissions Source	Proposed Controls
Train Unloading (Alternative 1)	Negative air venting to baghouse
Train Unloading (Alternative 2)	Choke feed
Truck Unloading (Alternative 3)	Choke feed
Storage Silos and Conveyors to Loading Buildings	Enclosed and negative air venting to baghouse
Container Loading	Loading arm with seal and negative air venting to baghouse

- The facility would operate up to 350 days per year, with the container loading operations occurring up to 14 hours per day.
- On-road yard tractor emissions increase above that necessary for handling the empty containers, with the assumption that the trip distance per container would increase by 1.75 miles and that there would be an additional five minutes of idling per container processed.
- On-site off-road equipment use would be limited to a diesel fueled sweeper vehicle that is used to maintain site cleanliness.
- There would be 61 new employees that commute an average of 30 miles per day, 350 days per year. Operations on-road emissions are calculated using the 2014 SCAQMD on-road emission factors.
- There would be one heavy-duty truck trip per week, 70 miles per round trip, necessary to remove grain dust or other accumulated wastes from the site.

Appendix A provides the specific numeric assumptions, such as line haul locomotive numbers and horsepower, switching locomotive horsepower and use assumptions, grain unloading and loading baghouse/bin vent exhaust flow, and daily/annual activity assumptions. Appendix A also provides information on all of the changes in the project assumptions and calculation methods that have occurred since the previously circulated Draft EIR (December 2011).

Environmental Controls

This analysis assumes that the proposed Project would operate in compliance with approved and applicable regulations identified in Section 3.1.1.3. The following control measures are considered part of the Project:

- **Construction Off-road Equipment** – Construction contractors would use ultra-low sulfur fuel and use construction equipment meeting USEPA Tier 3 specifications.
- **Locomotives** – Consistent with completed CAAP Measure RL1, all PHL switch locomotives and the Project's proposed yard locomotive shall have engines that meet USEPA Tier 3 standards, and consistent with RL2 line-haul and switch locomotives operating outside the Port would meet Tier 2 emissions limits.
- **Heavy-Duty Trucks** – Certain heavy-duty haul trucks would comply with the POLB Clean Trucks Program (similar to CAAP measure HDV1), which requires all Port

trucks to meet the USEPA 2007 Heavy-Duty Highway Rule emission standards by 2012. Specifically, the trucks that will be providing Crushed Miscellaneous Base (CMB) used during construction will be required to have post-2007 engines through a mitigation measure; and for the Trucking Alternative the grain transport trucks, which are cargo, would be required to meet the requirements of the POLB Clean Trucks Program.

- **Stationary Emission Sources** – The grain unloading and loading operations would create fugitive dust particulate matter emissions that would be controlled using baghouses/filters (Alternative 1) or choke feeding (Alternatives 2 and 3). The baghouses/filters would be required to meet SCAQMD BACT emissions limits, and are assumed to emit no more than 0.005 grains of particulate matter emissions per standard cubic foot of exhaust based on other recent permits.
- **Dedicated Operations Off-road Equipment** – At a minimum, the off-road equipment that will be used at the site during operations will be required to meet USEPA Tier 3 specifications.
- **Hydraulic Railcar Indexing System for Railcar Unloading** – A hydraulic indexing system will be used to move railcars during the unloading process. This system will reduce switching/yard locomotive use.

In summary, the following CAAP measures are applicable to the Project:

- The CAAP BMP for construction equipment (Off-road equipment meeting Tier 3 standards)
- Railroad locomotive control measures RL1 and RL2, which will be complied with by third party line-haul rail companies and PHL, respectively.
- On-road heavy-duty vehicle measure HDV1, which will be complied with by TTI. The TTI on-road yard tractors that will be used as part of this project already comply with this CAAP measure.

Railroad locomotive control Measure RL3 is not applicable to the Project. Measure RL3 "New and Redeveloped Near-Dock Rail Yards" specifies that it is intended to be used for rail facilities with intermodal operations. The new rail facilities for this Project are strictly related to bulk material receipt and it would not be an intermodal rail facility. However, while this Project would not be mandated to meet the requirements of Measure RL3, the intent and emissions reductions required by this measure would otherwise be met through the following Port-wide initiatives being performed under Control Measures RL1 (PHL Rail Switch Engine Modernization), RL2 (Class 1 Line-haul and Switcher Fleet Modernization), and RL3 (New and Redeveloped Near-Dock Rail Yards): Port-wide compliance with the use of ultra-low sulfur diesel fuel; the Port's support for the achievement of specific line-haul and switch locomotive performance requirements by the third party Class 1 rail operators; and the Port's requirement to modernize the PHL switcher locomotive fleet. Additionally, the Project would directly comply with CAAP measure HDV1 for TTI's yard tractors.

Health Risks

The Project's health risks were assessed using the following risk assessment guidance resources:

- CARB/OEHHA's "Consolidated Table of OEHHA/ARB Approved Risk Assessment Health Values" (CARB, 2013c);
- SCAQMD's "Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Emissions" (SCAQMD, 2003b).

This Project is located more than two miles from any sensitive receptors and is not located near areas with large numbers of workers. The Project's TAC emissions are dominated by DPM emissions from trains and trucks during construction and operation, and most of the DPM emissions will occur outside of the Port. Additionally, the DPM emissions will be controlled by existing CAAP measures and will be further controlled over time as train and truck fleet engines are modernized.

3.1.2.3 Alternative 1 - Proposed Project

Under the Proposed Project, the grain transloading facility has been designed to accommodate the following:

- Three grain storage silos,
- Rail improvements to allow unit train to be brought directly to the site,
- Maximum annual throughput of 2.8 million tons of material,
- Approximately four unit trains per week, and
- 18 months of construction.

Construction Impacts

Impact AQ-1: Project construction would produce emissions that exceed SCAQMD emission significance thresholds.

Construction is expected to last approximately 18 months, from September 2013 through mid-February 2015, and has been split into two primary phases, each with a number of sub-phases. The construction dates that have been provided by the applicant are subject to change pending the actual time needed to get required project approvals. Construction would occur between 7:00 a.m. and 4:00 p.m., Monday through Friday, and on Saturday, only as needed. Water trucks may operate on Saturdays and/or Sundays if required for dust control. Detailed assumptions for the construction phases, including equipment and on-road vehicle use, are provided in Appendix A.

Table 3.1-5 compares the maximum daily unmitigated construction emissions of the Project with the SCAQMD regional significance thresholds. Estimated maximum daily construction emissions would remain under the SCAQMD significance thresholds for all criteria pollutants, except for NO_x. Unmitigated maximum daily NO_x emissions are estimated to exceed the SCAQMD regional emissions threshold.

The single largest source of NO_x emissions is the hauling of crushed miscellaneous base (CMB). In order to reduce NO_x emissions, mitigation is proposed to reduce the CMB hauling travel distance by requiring the use of available CMB at the Port and the use of newer cleaner trucks. Table 3.1-6 compares the maximum daily mitigated construction emissions of the Project with the SCAQMD regional significance thresholds. Estimated maximum daily construction emissions would remain under the SCAQMD significance thresholds for all criteria pollutants, except for NO_x. Mitigated maximum daily NO_x emissions are estimated to exceed the SCAQMD regional emissions threshold.

The maximum daily emissions shown for each pollutant in Table 3.1-5 and 3.1-6 do not always occur during the same period of construction. Appendix A provides the details on where in the construction schedule's sub-phase overlap the maximum emissions occur for each pollutant.

CEQA Impact Determination

As shown in Table 3.1-6, the Project would produce significant levels of NO_x emissions during the construction phase.

Mitigation Measures

The following two mitigation measures would reduce the on-road emissions from the transport of bulk construction materials to the Project site.

Mitigation Measure AQ-1: Obtain Crushed Miscellaneous Base (CMB) from Nearest Available Suppliers.[1] The Project applicant shall contract for CMB from the nearest available suppliers of new or recycled CMB. The Project applicant shall provide POLB with the CMB purchase contracts showing compliance with this condition prior to hauling CMB to the site.

The Project includes a large amount of CMB use and hauling. An estimated total of 1,580 round trips are needed to haul needed CMB.

The hauling of CMB from available off-site sources could require round trip distances of 70 miles or more. The use of the nearest available suppliers of CMB reduces the estimated round trip hauling distance to 20 miles. This provides an emission reduction of more than 70 percent, due to the reduction in VMT. Two of the nearest suppliers of CMB, used to determine the revised mitigated round-trip hauling distance

[1] This mitigation measure originally required that the Project applicant contract for existing CMB stockpiled at the POLB to reduce VMT from CMB transport. However, POLB no longer has surplus stockpiled CMB, so POLB cannot contract with the applicant to provide the CMB required for Project construction.

TABLE 3.1-5
ALTERNATIVE 1 – MAXIMUM DAILY UNMITIGATED CONSTRUCTION EMISSIONS (LBS/DAY)

	VOC	CO	NO_x	SO_x	PM10	PM2.5
On-road equipment	21.17	101.49	294.31	0.46	14.44	12.34
Off-road equipment	10.56	39.08	39.64	0.06	1.64	1.51
Fugitive dust	—	—	—	—	39.17	9.28
Total	31.72	140.57	333.95	0.51	55.25	23.14
SCAQMD Regional Significance Thresholds	75	550	100	150	150	55
Significant?	No	No	Yes	No	No	No

Source: Appendix A

TABLE 3.1-6
ALTERNATIVE 1 – MAXIMUM DAILY MITIGATED CONSTRUCTION EMISSIONS (LBS/DAY)

	VOC	CO	NO_x	SO_x	PM10	PM2.5
On-road equipment	18.05	89.07	190.56	0.33	9.46	8.01
Off-road equipment	6.55	39.08	54.04	0.12	3.98	3.66
Fugitive dust	—	—	—	—	37.24	8.25
Total	24.59	128.14	244.59	0.45	50.68	19.92
SCAQMD Regional Significance Thresholds	75	550	100	150	150	55
Significant?	No	No	Yes	No	No	No

Source: Appendix A

distance for CMB, are Luvco Construction in Carson, which is located approximately 13 miles from the Project site, and Chandler's Sand & Gravel in Rolling Hills Estates, which is located approximately 20 miles round-trip from the Project site.

Mitigation Measure AQ-2: Haul Crushed Miscellaneous Base (CMB) Using Trucks Meeting USEPA Post-2007 Emissions Standards. For the hauling of CMB during Project construction the Project applicant, or its construction contractor, shall only contract with trucking firms that can supply haul trucks that meet USEPA Post-2007 emission standards. The Project applicant shall provide the Port with haul truck specifications demonstrating compliance with this condition prior to hauling CMB to the site.

This measure is essentially equivalent to the POLB drayage truck CAAP requirements, but it does not require the trucks that are used to haul CMB to be formally certified under the Clean Trucks Program (CTP). This measure allows the use of any haul truck that can demonstrate compliance with the USEPA Post-2007 emissions standards to haul the CMB that would be required for Project construction; including the use of CTP-compliant drayage trucks to haul the CMB, a non-drayage load, if outside trucking firms cannot provide trucks that meet this requirement. This mitigation measure would reduce the NO_x emissions from these heavy-duty truck trips by approximately 70 percent in comparison to SCAB fleet average heavy-duty truck emissions.

The combination of these two mitigation measures reduces the estimated NO_x emissions from CMB transport by over 90 percent, reduces the reasonably foreseeable maximum daily NO_x emissions by almost 90 lbs/day, or over 25 percent, and reduces the total construction NO_x emissions by nearly 1.3 tons.

Additional construction NO_x emissions mitigation measures considered but determined to be technically infeasible, as described below, include:

- Requiring the use of off-road equipment with Tier 4 engines. The construction schedule of 2013/2014 is too early to require off-road equipment with Tier 4 engines, as there will be little if any Tier 4 equipment available during this construction period.
- Requiring that all heavy-duty trucks have engines that meet post-2007 emissions standards. Construction contractors will use their own trucks or third party contractor trucks for a few trips for specific hauling needs for the various construction activities. Therefore, it is not logistically feasible to require such limited use trucks to meet this post-2007 emissions standard. However, for the hauling of CMB within the Port, which is considered to be a short-term consolidated material need that will require a large number of trips, trucks utilized for these trips would be required to meet this emissions standard (see Mitigation Measure AQ-2).

Significance of Impacts after Mitigation

Construction of the Project would have temporary significant and unavoidable NO_x impacts.

Impact AQ-2: Project construction would not result in off-site ambient air pollutant concentrations that exceed a SCAQMD threshold of significance.

SCAQMD LSTs are used to determine if a project exceeds ambient air quality thresholds. The LSTs were established by SCAQMD for each Source Receptor Area (SRA) within their jurisdiction, and represent on-site emission levels that could cause ambient air quality standard exceedances or substantial contributions to existing exceedances at given distances from the site to nearby receptor locations. The appropriate LSTs for the Project site were compared to the assumed reasonably foreseeable maximum on-site daily construction emissions. The following construction parameters and assumptions are used:

- Two-acre active construction area within the 17.6-acre site,
- All off-road equipment emissions occur on site,
- Ten percent of the on-road emissions, including the fugitive dust emissions from on-road travel, occur on site,
- All fugitive dust emissions, except the paved road fugitive dust emissions, occur on site,
- The closest sensitive receptors (residences, schools, hospitals, etc.) are located more than two miles from the Project site, so the SCAQMD LSTs are based on the furthest distance provided in the SCAQMD LST tables (500 meters), and
- The Project is located in SRA 4 (South Coastal Los Angeles County).

Table 3.1-7 provides a comparison of the assumed reasonably foreseeable maximum on-site daily emissions versus the applicable LST. Appendix A provides information on which schedule sub-phase overlap creates the highest daily emissions for each pollutant.

Table 3.1-7 compares reasonably foreseeable maximum on-site daily emissions to the conservatively assumed SCAQMD LSTs that would apply for sensitive receptors located 500 meters (0.31 miles) from the Project site. The nearest sensitive receptors are located more than two miles from the Project site. This table indicates that even with the use of these emissions and receptor assumptions, the estimated on-site construction emissions would fall below all SCAQMD LSTs.

CEQA Impact Determination

The Project's construction would not result in off-site ambient air pollutant concentrations that exceed a SCAQMD threshold of significance and therefore would have less-than-significant ambient air quality impacts.

Mitigation Measures

No additional mitigation is necessary since the Project's construction emissions are below SCAQMD LSTs.

Significance of Impacts after Mitigation

Less than significant.

Operation Impacts

Impact AQ-3: Project would result in operation emissions that exceed SCAQMD thresholds of significance.

Operation emissions would result from train trips and railcar switching, fugitive dust particulate

TABLE 3.1-7
ALTERNATIVE 1 – MAXIMUM DAILY ON-SITE CONSTRUCTION EMISSIONS (LBS/DAY)

	CO	NO_x	PM10	PM2.5
On-road equipment	8.91	19.06	0.95	0.80
Off-road equipment	39.08	54.04	3.98	3.66
Fugitive dust	—	—	37.24	8.25
Total	47.98	73.09	42.17	12.71
SCAQMD Localized Significance Thresholds	8,253	151	167	101
Significant?	No	No	No	No

Source: Appendix A

emissions due to the controlled handling of grain, on-site mobile equipment use, and vehicle emissions from heavy-duty truck trips and employee commuting.

Table 3.1-8 compares the maximum daily operations emissions of the Project with the SCAQMD regional significance thresholds. Estimated maximum daily operations emissions would remain under the SCAQMD significance thresholds for all criteria pollutants, except for NO_x. Mitigated maximum daily NO_x emissions are estimated to exceed the SCAQMD regional emissions threshold.

CEQA Impact Determination

As shown in Table 3.1-8, the Project would produce significant levels of NO_x emissions. The NO_x emissions during operation would result in significant air quality impacts.

Mitigation Measures

The majority of operation NO_x emissions are from trains, and the vast majority of the train emissions are from third party (BNSF/UP) line-haul and switchyard emissions. The POLB and the applicant cannot require that these third parties provide emissions mitigation above that which is already required by the MOUs that these third parties have with the USEPA and CARB. This is because the POLB has no operational control over these federally regulated third parties. On the other hand, PHL operates at the Port and is thus subject to the CAAP. As such, the PHL locomotives are required to meet Tier 3 or better locomotive engine standards in accordance with the CAAP. In the future, sometime after 2015 when Tier 4 engine emissions standards come into effect for new locomotive engines, the CAAP may be updated to require PHL switch locomotives to meet Tier 4 engine emissions standards. However, the switching and yard locomotives comprise a small component of the overall train NO_x emissions (less than three percent of the total train emissions for the Project), so this potential future mitigation has not been quantified in the impact analysis. Therefore, there are no additional feasible mitigation measures currently available to meaningfully reduce the NO_x emissions from operation.

TABLE 3.1-8
ALTERNATIVE 1 – MAXIMUM DAILY OPERATION EMISSIONS (LBS/DAY)

	VOC	CO	NO_x	SO_x	PM10	PM2.5
On-road equipment	2.90	15.79	15.31	0.04	1.97	0.63
Off-road equipment	0.04	0.23	0.13	0.00	0.02	0.02
Trains	44.79	174.23	625.53	0.52	11.41	10.49
Grain handling	—	—	—	—	19.61	19.61
Total	47.73	190.25	640.97	0.56	33.00	30.75
SCAQMD Regional Significance Thresholds	55	550	55	150	150	55
Significant?	No	No	Yes	No	No	No

Source: Appendix A

In the "Roadmap for Moving Forward with Zero Emissions Technologies at the Port of Long Beach and Port of Los Angeles", the ports' assessment of zero emissions technologies for existing rail operations did not identify any solutions that can reasonably be implemented for existing rail operations within the near-term. The POLB will continue to collaborate with rail companies and other stakeholders to evaluate strategies to reduce air emissions, including NOx, from locomotives. Additionally, Mitigation Measure AQ-3 will require the applicant to review new air emissions reductions technologies on a periodic basis and implement those technologies where feasible in the future.

Mitigation Measure AQ-3: Periodic Technology Review. To promote new emission control technologies, the tenant shall implement every five years following the effective date of the lease agreement, a review of new air quality technological advancements, subject to mutual agreement on operational feasibility, technical feasibility, and cost-effectiveness and financial feasibility, which agreement shall not be unreasonably withheld. If a technology is determined to be feasible in terms of cost, technical and operational feasibility, the tenant shall work with the Port to implement such technology.

This analysis has not quantified nor has any credit been taken for any emissions reductions that may be obtained from the application of this mitigation measure.

Significance of Impacts after Mitigation

Operation of the proposed Project would have significant and unavoidable NO_x impacts.

Impact AQ-4: Project operations would not result in off-site ambient air pollutant concentrations that exceed a SCAQMD threshold of significance.

SCAQMD LSTs were used to determine if the operations of the Project would exceed ambient air quality thresholds. The LSTs were established by SCAQMD for each SRA within their jurisdiction, and were compared to the assumed reasonably foreseeable maximum on-site daily construction emissions. The following operational parameters and assumptions are used:

- Five-acre LST table values were used to estimate the area with active emission sources within this 17.6-acre site,
- Fifty percent of the yard tractor emissions occur on site, ten percent of the other on-road emissions are on site,
- All yard locomotive emissions occur on site, and one percent of the SCAB line-haul locomotive emissions occur on site,
- All of the on-site equipment emissions and the grain handling emissions occur on site,
- The closest sensitive receptors (residences, schools, hospitals, etc.) are located more than two miles from the Project site, so the SCAQMD LSTs are conservatively based on the furthest distance provided in the SCAQMD LST tables (500 meters), and
- The Project is located in SRA 4 (South Coastal Los Angeles County).

Table 3.1-9 provides a comparison of the assumed reasonably foreseeable maximum on-site daily operations emissions versus the

TABLE 3.1-9
ALTERNATIVE 1 – MAXIMUM DAILY ON-SITE OPERATIONS EMISSIONS (LBS/DAY)

	CO	NO_x	PM10	PM2.5
On-road equipment	3.31	6.95	0.40	0.14
Off-road equipment	0.23	0.13	0.02	0.02
Trains	10.07	23.60	0.46	0.42
Grain handling	—	—	19.61	19.61
Total	13.61	30.68	20.49	20.19
SCAQMD Localized Significance Thresholds	10,198	179	46	29
Significant?	No	No	No	No

Source: Appendix A

applicable LSTs. Table 3.1-9 also shows reasonably foreseeable maximum on-site daily emissions and the conservatively assumed SCAQMD LSTs that would apply for sensitive receptors located 500 meters (0.31 miles) from the Project site. The nearest receptors are located more than two miles from the Project site. This table indicates that even with the conservative emissions and receptor assumptions the estimated on-site operations emissions would be below all SCAQMD LSTs.

CEQA Impact Determination

The Project's operation would not result in off-site ambient air pollutant concentrations that exceed a SCAQMD threshold of significance and therefore would have less-than-significant ambient air quality impacts.

Mitigation Measures

No additional mitigation is necessary since the Project's operation emissions are below SCAQMD LSTs.

Significance of Impacts after Mitigation

Less than significant.

Impact AQ-5: Project would not expose receptors to significant levels of TACs.

Emissions of air toxics are limited for the Project, and from a health risk perspective are completely associated with the emissions of DPM from mobile sources. The implementation of recommended Mitigation Measures AQ-1 and AQ-2 would reduce DPM emissions from construction activities, and implementation of the control measures identified in Section 3.1.2.2 (Methodology) would reduce the DPM from the operating mobile sources to the extent feasible.

A simplified risk analysis, using SCAQMD guidelines (SCAQMD, 2003b), for the Project operating DPM emissions was performed using worst case SCREEN3 dispersion modeling and receptors located at 500 meters (off-site workers) and 3,000 meters (residential receptors) to determine the worst-case cancer and chronic health risks from on-site Project emissions. The screening level modeling and health risk calculation approach was selected due to the relatively low level of Project DPM emissions and the long distances from the Project site to the residential and off-site worker receptor locations.

A more refined, and less conservative, modeling analysis would have been performed if the screening level analysis found impacts to be greater than the SCAQMD significance thresholds. However, the screening level analysis found the health impacts to be less than the SCAQMD significance thresholds, so additional refined modeling and risk impact analyses were unnecessary for CEQA impact determination. The results of this screening level health risk analysis are provided in Table 3.1-10.

TABLE 3.1-10
HEALTH RISK FROM ON-SITE EMISSIONS

	Risk Value
Maximum Residential Cancer Risk	2.3×10^{-7}
Maximum Off-site Worker Cancer Risk	7.1×10^{-7}
Maximum Residential Chronic Health Index	0.00035
Maximum Off-site Worker Chronic Health Index	0.00168

Source: Appendix A

This simplified and conservative health risk assessment does not factor in the large reductions in mobile source DPM that would be expected to occur as a result of federal, State, and Port CAAP DPM emissions reductions programs. As Table 3.1-10 indicates, the risk values, even using very conservative modeling and calculation assumptions, are below the significance thresholds of 10 in a million for cancer risk and 1.0 for the chronic health index. Based on the low population immediately surrounding the site and that there is no population south of the site, it is assumed that the total Project cancer burden is well below 0.5.

CEQA Impact Determination

Impacts of air toxics are below SCAQMD significance thresholds and are less than significant.

Mitigation Measures

None required.

Significance of Impacts after Mitigation

Impacts of air toxics would be less than significant.

Impact AQ-6: Project would not conflict with or obstruct implementation of an applicable AQMP.

The proposed Project would produce emissions of nonattainment pollutants primarily from diesel-powered sources and grain handling. The 2007 AQMP proposes emission reduction measures that are designed to bring the SCAB into attainment of the NAAQS and CAAQS. The attainment strategies in this plan include mobile source control measures and clean fuel programs that are enforced at the federal and State levels on engine manufacturers and petroleum refiners and retailers.

The SCAQMD adopts AQMP control measures into the SCAQMD rules and regulations, which are then used to regulate sources of air pollution in the SCAB. The Project would comply with these regulatory requirements. Additionally, the Project would be required to meet CAAP requirements and other control measure and mitigation measure requirements as a part of the facility lease. These additional project control and mitigation measure requirements work in concert to implement the 2007 AQMP, and provide additional assurance that the Project's emissions sources will meet or exceed the emissions control forecasts for all approved AQMP control measures.

The POLB provides SCAG with Port-wide cargo forecasts that are used to simulate growth scenarios in the AQMP, and the attainment demonstrations in the AQMP include emissions estimated for future growth at the Port. Since the 2007 AQMP assumes growth that is consistent with the implementation of this Project, it would not exceed the future growth projections in the 2007 AQMP, and it would not conflict with or obstruct implementation of the SIP. As a result, construction and operation of the mitigated Project would result in less than cumulatively considerable contributions to the objective to implement the applicable AQMP.

CEQA Impact Determination

The Project would not conflict with or obstruct implementation of an applicable AQMP; therefore, impacts would be less than significant.

Mitigation Measures

Impacts on air quality would be less than significant, so no mitigation is required.

Significance of Impacts after Mitigation

Less than significant.

3.1.2.4 Alternative 2 – Reduced Project Alternative

Under the Reduced Project Alternative, the grain transloading facility has been designed to accommodate the following:

- Two grain storage silos (smaller in scale than the proposed Project),
- Maximum annual throughput of 2.8 million tons of material,
- Approximately four unit trains per week, and
- 14 months of construction

Construction Impacts

Impact AQ-1: Project construction would produce emissions that exceed SCAQMD emission significance thresholds.

Since the overall construction activities required under the Reduced Project Alternative are less than those required under the proposed Project, the total construction emissions associated with this alternative would be less than those for the proposed Project. Tables 3.1-11 and 3.1-12 provide the unmitigated and mitigated emission summary for this alternative. As shown, the construction emissions are lower than those for the proposed Project, but like the proposed Project the NO_x emissions would still exceed the SCAQMD significance thresholds.

CEQA Impact Determination

The Reduced Project Alternative would produce significant levels of NO_x emissions. Therefore, the NO_x emissions during construction would result in temporary significant air quality impacts.

Mitigation Measures

As with the proposed Project, Mitigation Measures AQ-1 and AQ-2 would be applied to the Reduced Project Alternative.

Significance of Impacts after Mitigation

Construction of the Reduced Project Alternative would have temporary significant and unavoidable NO_x impacts.

Impact AQ-2: Project construction would not result in off-site ambient air pollutant concentrations that exceed a SCAQMD threshold of significance.

As noted above, and shown in Table 3.1-12, the maximum daily construction emissions of the Reduced Project Alternative are lower than the emissions summarized for the proposed Project. Therefore, as indicated in Table 3.1-7 for the proposed Project, the estimated on-site construction emissions would fall below all SCAQMD LSTs.

CEQA Impact Determination

The Reduced Project Alternative's construction would not result in off-site ambient air pollutant concentrations that exceed a SCAQMD threshold of significance and would therefore have less than significant ambient air quality impacts.

Mitigation Measures

No additional mitigation is necessary since the Reduced Project Alternative's construction emissions are below SCAQMD LSTs.

Significance of Impacts after Mitigation

Less than significant.

Operation Impacts

Impact AQ-3: Project would result in operation emissions that exceed SCAQMD thresholds of significance.

Due to the overall throughput capacity of the facility being the same as the proposed Project, the annual operation activities required under the Reduced Project Alternative would be nearly identical to the proposed Project. Table 3.1-13 shows that the estimated daily operations emissions for this alternative are nearly the same as those for the proposed Project, and the emissions impacts would be the same as those for the proposed Project.

CEQA Impact Determination

The Reduced Project Alternative's operation NO_x emissions would result in significant air quality impacts.

Mitigation Measures

As noted for the proposed Project, there are no feasible mitigation measures to reduce the NO_x emissions during operations, which are almost entirely comprised of third party line-haul and switchyard rail emissions. However, Mitigation Measure AQ-3 would require the applicant to review new air emissions reductions technologies on a periodic basis and implement those technologies where feasible.

Significance of Impacts after Mitigation

Operation of the Reduced Project Alternative would have significant and unavoidable NO_x impacts.

Impact AQ-4: Project operations would not result in off-site ambient air pollutant concentrations that exceed a SCAQMD threshold of significance.

The on-site emissions would be nearly the same as for the proposed Project, as presented in Table 3.1-9. This table indicates that even with the conservative emissions and receptor assumptions, the estimated on-site operations emissions would fall below all SCAQMD LSTs.

CEQA Impact Determination

The Reduced Project Alternative's operation would not result in off-site ambient air pollutant concentrations that exceed a SCAQMD threshold of significance and therefore would have less than significant ambient air quality impacts.

Mitigation Measures

No additional mitigation is necessary since the Reduced Project Alternative's operation emissions are below SCAQMD LSTs.

Significance of Impacts after Mitigation

Less than significant.

Impact AQ-5: Project would not expose receptors to significant levels of TACs.

Impacts of air toxics under the Reduced Project Alternative would be slightly less than those under the proposed Project due to reduced level of construction activities and the lower on-site yard locomotive use, which would slightly reduce long term DPM emissions. Therefore, as was determined for the proposed

TABLE 3.1-11
ALTERNATIVE 2 – MAXIMUM DAILY UNMITIGATED CONSTRUCTION EMISSIONS (LBS/DAY)

	VOC	CO	NO_x	SO_x	PM10	PM2.5
On-road equipment	21.60	100.63	237.73	0.38	11.74	10.01
Off-road equipment	2.22	14.34	16.28	0.03	1.53	1.41
Fugitive dust	—	—	—	—	32.59	7.43
Total	23.82	114.97	254.00	0.41	45.86	18.85
SCAQMD Regional Significance Thresholds	75	550	100	150	150	55
Significant?	No	No	Yes	No	No	No

Source: Appendix A

TABLE 3.1-12
ALTERNATIVE 2 – MAXIMUM DAILY MITIGATED CONSTRUCTION EMISSIONS (LBS/DAY)

	VOC	CO	NO_x	SO_x	PM10	PM2.5
On-road equipment	9.86	53.89	100.81	0.22	5.00	4.11
Off-road equipment	2.22	14.34	16.28	0.03	1.53	1.41
Fugitive dust	—	—	—	—	21.13	4.62
Total	12.08	68.23	117.09	0.25	27.66	10.14
SCAQMD Regional Significance Thresholds	75	550	100	150	150	55
Significant?	No	No	Yes	No	No	No

Source: Appendix A

TABLE 3.1-13
ALTERNATIVE 2 – MAXIMUM DAILY OPERATION EMISSIONS (LBS/DAY)

	VOC	CO	NO_x	SO_x	PM10	PM2.5
On-road equipment	2.90	15.79	15.31	0.04	1.97	0.63
Off-road equipment	0.04	0.23	0.13	0.00	0.02	0.02
Trains	46.80	179.36	631.41	0.53	11.51	10.59
Grain handling	—	—	—	—	24.95	24.95
Total	49.75	195.38	646.84	0.57	38.44	36.19
SCAQMD Regional Significance Thresholds	55	550	55	150	150	55
Significant?	No	No	Yes	No	No	No

Source: Appendix A

Project (see Table 3.1-10), the health risk impacts would remain below SCAQMD significance thresholds.

CEQA Impact Determination

Impacts of air toxic emissions would be less than significant.

Mitigation Measures

None required.

Significance of Impacts after Mitigation

Impacts of air toxics would be less than significant.

Impact AQ-6: Project would not conflict with or obstruct implementation of an applicable AQMP,

This impact is identical to that for the proposed Project.

CEQA Impact Determination

The Reduced Project would not conflict with or obstruct implementation of an applicable AQMP. Therefore, impacts would be less than significant.

Mitigation Measures

None required.

Significance of Impacts after Mitigation

Same as for the proposed Project, less than significant.

3.1.2.5 Alternative 3 – Trucking Alternative

Under the Trucking Alternative, the transloading facility has been designed to accommodate the following:

- Two grain storage silos (smaller in scale than the proposed Project),
- Maximum annual throughput of 2.8 million tons of material, and
- Use of covered hopper trucks to transport grain to the site from a grain transloading facility located at the Barstow rail yard.

Construction Impacts

Impact AQ-1: Project construction would produce emissions that exceed SCAQMD emission significance thresholds.

While the Trucking Alternative construction requirements would be slightly less than that required by the proposed Project, as upgrades to rail infrastructure would not occur, they have been assumed for this analysis to be the same as Alternative 2 (see Table 3.1-12). Therefore, all criteria pollutants, except NO_x, would remain under the SCAQMD significance thresholds. NO_x emissions, however, would exceed the SCAQMD significance thresholds.

CEQA Impact Determination

The Trucking Alternative would produce significant levels of NO_x emissions. Therefore, the NO_x emissions during construction would result in temporary significant air quality impacts.

Mitigation Measures

As with the proposed Project, Mitigation Measures AQ-1 and AQ-2 would be applied to the Trucking Alternative.

Significance of Impacts after Mitigation

Construction of the Trucking Alternative would have temporary significant and unavoidable NO_x impacts.

Impact AQ-2: Project construction would not result in off-site ambient air pollutant concentrations that exceed a SCAQMD threshold of significance.

As noted above, the maximum daily construction emissions of the Trucking Alternative are assumed to be the same as Alternative 2 and lower than the proposed Project. Therefore, as indicated in Table 3.1-7 for the proposed Project, the estimated on-site construction emissions would be below all SCAQMD LSTs.

CEQA Impact Determination

The Trucking Alternative's construction would not result in off-site ambient air pollutant concentrations that exceed a SCAQMD threshold of significance and therefore would have less than significant ambient air quality impacts.

Mitigation Measures

No additional mitigation is necessary since the Trucking Alternative's construction emissions are below SCAQMD LSTs.

Significance of Impacts after Mitigation

Less than significant.

Operation Impacts

Impact AQ-3: Project would result in operation emissions that exceed SCAQMD thresholds of significance.

Operation emissions would result from grain delivery truck trips, fugitive dust particulate emissions due to the controlled handling of grain, on-site mobile equipment use, and vehicle emissions from other project heavy-duty truck trips and employee commuting. Table 3.1-14 compares the maximum daily unmitigated operation emissions of the Trucking Alternative to the SCAQMD regional significance thresholds. Estimated maximum daily operation emissions would exceed the SCAQMD significance thresholds for all criteria pollutants, except for CO.

The major source of those emissions is from truck use for the hauling of grain. The POLB Clean Trucks Program would apply to trucks hauling grain under Alternative 3. Table 3.1-15 compares the maximum daily operations emissions of the Trucking Alternative with the

TABLE 3.1-14

ALTERNATIVE 3 – TRUCKING ALTERNATIVE MAXIMUM DAILY UNMITIGATED OPERATION EMISSIONS (LBS/DAY)

	VOC	CO	NO_x	SO_x	PM10	PM2.5
On-road equipment	151.50	653.84	1,781.38	3.44	310.32	128.13
Off-road equipment	0.04	0.23	0.13	0.00	0.02	0.02
Grain handling	—	—	—	—	24.95	24.95
Total	151.55	654.07	1,781.50	3.44	335.28	153.10
SCAQMD Regional Significance Thresholds	55	550	55	150	150	55
Significant?	Yes	Yes	Yes	No	Yes	Yes

Source: Appendix A

TABLE 3.1-15

ALTERNATIVE 3 – TRUCKING ALTERNATIVE MAXIMUM DAILY MITIGATED OPERATION EMISSIONS (LBS/DAY)

	VOC	CO	NO_x	SO_x	PM10	PM2.5
On-road equipment	43.70	267.92	792.84	3.44	257.66	77.98
Off-road equipment	0.04	0.23	0.13	0.00	0.02	0.02
Grain handling	—	—	—	—	24.95	24.95
Total	43.75	268.15	792.97	3.44	282.62	102.94
SCAQMD Regional Significance Thresholds	55	550	55	150	150	55
Significant?	No	No	Yes	No	Yes	Yes

Source: Appendix A

SCAQMD regional significance thresholds. Estimated maximum daily operations emissions would exceed the SCAQMD significance thresholds for NOx and PM (PM10 and PM2.5). Mitigated maximum daily VOC, CO, and SOx emissions are all estimated to remain below their respective SCAQMD regional emissions thresholds.

CEQA Impact Determination

As shown in Table 3.1-15, the Trucking Alternative would produce significant levels of NO_x, PM10 and PM2.5 emissions. The Trucking Alternative's operating emissions would result in significant air quality impacts.

Mitigation Measures

There are no feasible mitigation measures to reduce the grain trucking emissions during operation, beyond implementation of the POLB Clean Trucks Program. Truck usage creates the vast majority of the emissions for the Trucking Alternative. The other emissions sources will be controlled through Port lease requirements or SCAQMD BACT requirements.

Significance of Impacts after Mitigation

Operation of the Trucking Alternative would have significant and unavoidable NO_x, VOC, PM10, and PM2.5 impacts.

Impact AQ-4: Project operations would not result in off-site ambient air pollutant concentrations that exceed a SCAQMD threshold of significance.

SCAQMD LSTs are used to determine if a project exceeds ambient air quality thresholds. The LSTs were established by SCAQMD for each SRA within its jurisdiction, and were compared to the assumed operations emissions under the Trucking Alternative.

The following operation assumptions and parameters for the Trucking Alternative are used:

- Five-acre LST table values used for this 11.6-acre site,
- One percent of the grain hauling on-road emissions are on site, fifty percent of the yard tractor emissions occur on site, and ten percent of the other on-road emissions are on site,

- All of the on-site equipment emissions and the grain handling emissions occur on site,
- The closest sensitive receptors (residences, schools, hospitals, etc.) are located at least two miles from the Project site, so the SCAQMD LSTs are conservatively based on the furthest distance provided in the SCAQMD LST tables (500 meters), and
- The Project is located in SRA 4 (South Coastal Los Angeles County)

Table 3.1-16 provides a comparison of the assumed reasonably foreseeable maximum on-site daily operations emissions versus the applicable LST.

Table 3.1-16 compares reasonably foreseeable maximum on-site daily emissions to the conservatively assumed SCAQMD LSTs that would apply for sensitive receptors located 500 meters (0.31 miles) from the Project site. The nearest prison and residential receptors are located more than two miles from the Project site. This table indicates that even with these emissions and receptor assumptions, the estimated on-site operations emissions for the Trucking Alternative would fall below all SCAQMD LSTs.

CEQA Impact Determination

The Trucking Alternative's operation would not result in off-site ambient air pollutant concentrations that exceed a SCAQMD threshold of significance and therefore would have less than significant ambient air quality impacts.

Mitigation Measures

No additional mitigation is necessary since the Trucking Alternative's operation emissions are below SCAQMD LSTs.

Significance of Impacts after Mitigation

Less than significant.

Impact AQ-5: Project would not expose receptors to significant levels of TACs.

Impacts of air toxics, specifically the on-site DPM emission rates, under the Trucking Alternative would be lower than for the proposed Project. Therefore, as was determined for the proposed Project (see Table 3.1-10), the health risk impacts for the Trucking Alternative would be below SCAQMD significance thresholds.

CEQA Impact Determination

Impacts of air toxic emissions would be less than significant.

Mitigation Measures

None required.

Significance of Impacts after Mitigation

Impacts of air toxics would be less than significant.

Impact AQ-6: Project would not conflict with or obstruct implementation of an applicable AQMP.

As with the proposed Project, this alternative would not conflict with or obstruct the implementation of an applicable AQMP.

CEQA Impact Determination

As with the proposed Project, Alternative 3 would not conflict with or obstruct implementation of the applicable AQMP. As such, the impacts are less than significant.

Mitigation Measures

None required.

Significance of Impacts after Mitigation

No impact.

TABLE 3.1-16

ALTERNATIVE 3 – TRUCKING ALTERNATIVE MAXIMUM DAILY ON-SITE OPERATION EMISSIONS (LBS/DAY)

	CO	NO_x	PM10	PM2.5
On-road equipment	9.69	24.61	3.49	1.42
Off-road equipment	0.23	0.13	0.02	0.02
Grain handling	—	—	24.95	24.95
Total	9.92	24.74	28.45	26.38
SCAQMD Localized Significance Threshold	10,198	179	46	29
Significant?	No	No	No	No

Source: Appendix A

3.1.2.6 Alternative 4 – No Project Alternative

Under the No Project Alternative the Project site would remain undeveloped. No reasonably foreseeable development of the site has been identified by the POLB. Use of the site as a construction laydown area, similar to what is currently occurring, may continue to occur on an as-needed basis. Shipping vessels would continue to transport empty containers from Pier T, rather than being shipped with grain and/or DDGS with implementation of the proposed Project. It is anticipated that under this alternative, grain and DDGS producers from the Midwest would identify alternative domestic end-users, identify alternative port(s) for export of the materials, and/or the volume of production of grain would be reduced. However, the specifics of such actions regarding the surplus grain/DDGS that would otherwise be exported through this Project are not included in the assessment of the No Project Alternative because they would be too speculative for reasonable analysis.

Construction Impacts

Impact AQ-1: Project construction would not produce emissions that exceed SCAQMD emission significance thresholds.

No direct or indirect construction emissions would occur under the No Project Alternative, since there would be no construction associated activities with the No Project Alternative.

CEQA Impact Determination

There would be no CEQA impacts associated with the No Project Alternative.

Mitigation Measures

None required.

Significance of Impacts after Mitigation

No impact.

Impact AQ-2: Project construction would not result in off-site ambient air pollutant concentrations that exceed a SCAQMD threshold of significance.

No direct or indirect construction emissions would occur under the No Project Alternative since there would be no construction activities associated with the No Project Alternative.

CEQA Impact Determination

The No Project Alternative would not result in off-site ambient air pollutant concentrations that exceed a SCAQMD threshold of significance.

Mitigation Measures

None required.

Significance of Impacts after Mitigation

No impact.

Operation Impacts

Impact AQ-3: Project would not result in operation emissions that exceed SCAQMD thresholds of significance.

No operations emissions would occur under the No Project Alternative since there would be no operation activities associated with the No Project Alternative.

CEQA Impact Determination

The No Project alternative would not result in operational emissions that exceed SCAQMD thresholds of significance.

Mitigation Measures

None required.

Significance of Impacts after Mitigation

No impact.

Impact AQ-4: Project operations would not result in off-site ambient air pollutant concentrations that exceed a SCAQMD threshold of significance.

No direct or indirect construction emissions would occur under the No Project Alternative since there would be no construction activities associated with the No Project Alternative.

CEQA Impact Determination

The No Project Alternative would not result in off-site ambient air pollutant concentrations that exceed a SCAQMD threshold of significance.

Mitigation Measures

None required.

Significance of Impacts after Mitigation

No impact.

Impact AQ-5: Project would not expose receptors to significant levels of TACs.

No TAC emissions would be generated under the No Project Alternative since there would be no activities associated with the No Project Alternative.

CEQA Impact Determination

The No Project Alternative would not expose sensitive receptors to TACs. Thus, no impact would occur.

Mitigation Measures

None required.

Significance of Impacts after Mitigation

No impact.

Impact AQ-6: Project would not conflict with or obstruct implementation of an applicable AQMP.

No activities would occur under the No Project Alternative, so there are no actions that could conflict or obstruct implementation of an applicable AQMP.

CEQA Impact Determination

The No Project Alternative would not conflict with or obstruct implementation of an applicable AQMP.

Mitigation Measures

None required.

Significance of Impacts after Mitigation

No impact.

3.1.3 Cumulative Impacts

The following discussion evaluates whether air quality impacts of the proposed Project would be cumulatively significant within the context of impacts caused by other past, present, or reasonably foreseeable future projects in the geographic location of the proposed Project.

3.1.3.1 Geographic Extent/Context

The region of analysis for the Project's cumulative effects on air quality is:

(1) The SCAB for regional criteria pollutant analysis; although, the highest criteria pollutant impacts from the Project would occur within the communities adjacent to the proposed Project. Additionally, the SCAQMD LST significance criteria used to assess Impacts AQ-2 and AQ-4 is a project specific analysis, so a more qualitative assessment is used for the cumulative assessment of these two impacts; and

(2) For health risk analysis purposes, the area of influence includes the assessment of all of the cumulative projects within the POLB complex and their effects on the surrounding communities.

3.1.3.2 Existing Cumulative Condition

Due to its large population, substantial numbers of emission sources, and geographical/ meteorological conditions that inhibit atmospheric dispersion, the SCAB experiences degraded air quality. As stated in Section 3.1, the region currently does not attain the NAAQS or CAAQS for O_3, PM10, and PM2.5, and does not attain the CAAQS for NO_2. However, the 2007 AQMP predicts attainment of all NAAQS within the SCAB, including PM2.5 by 2014 and O_3 by 2024. The SCAQMD is in the process of developing an update to the AQMP and may identify updated attainment dates within that plan.

Cumulative analysis of air quality impact uses projections from the SCAB 2007 AQMP and the MATES-II (SCAQMD, 2000) and MATES-III studies (SCAQMD, 2008). Additionally, the cumulative impact analysis considers other projects proposed within the area that would have the potential to contribute to cumulatively considerable impacts, and includes approved or pending actions identified in Table 2.1-1 (see Figure 2.1-1 for locations of various projects).

3.1.3.3 Reasonably Foreseeable Projects

Cumulative projects considered in the analysis, as shown in Section 2, Table 2.1-1, include the following:

Port of Long Beach

- Middle Harbor Terminal Redevelopment
- Piers G&J Terminal Redevelopment Project
- Pier S Marine Terminal
- Pier A East
- Chemoil Marine Terminal, Tank Installation

- Gerald Desmond Bridge Replacement Project, POLB/Caltrans/FHWA
- Administration Building and Maintenance Facility Replacement Project
- Pier B Rail Yard Expansion
- Mitsubishi Cement Corporation Facility Modifications
- Eagle Rock Aggregate Terminal

City of Long Beach

- Shoreline Gateway Project
- West Gateway Redevelopment Project
- Golden Short Master Plan
- Press-Telegram Mixed Use Development
- Sierra Hotel Project
- Long Beach Downtown Plan
- 1235 Long Beach Boulevard Mixed-Use Project
- Ocean Boulevard Project
- Lyon West Gateway Residential Development, Broadway at Magnolia Avenue and 4th Streets.
- Pine–Pacific, bounded by Pine and Pacific Avenues, and 3rd and 4th Streets
- Lofts at 3rd and Promenade
- Broadway Block Development, Broadway, Long Beach Boulevard, 3rd Street, and Elm Avenue
- Hotel Esterel, Promenade at Broadway
- Promenade Master Plan, between Shoreline Drive and 5th Street

Port of Los Angeles

- Berths 136-147 Marine Terminal, West Basin
- Berths 97-109, China Shipping Development Project
- Channel Deepening Project
- Berths 171-181, Pasha Marine Terminal Improvements Project
- Plains All American (formerly Pacific Energy) Oil Marine Terminal, Pier 400
- Ultramar Lease Renewal Project
- SSA Outer Harbor Fruit Facility Relocation
- POLA Charter School and Port Police Headquarters, San Pedro
- San Pedro Waterfront Enhancements Project
- Southern California International Gateway Project (SCIG)
- Cabrillo Way Marina, Phase II
- Berths 302-305 (APL) Container Terminal Improvements Project
- South Wilmington Grade Separation
- C Street/Figueroa Street Interchange
- I-110/SR-47 Connector Improvement Program
- Port Transportation Master Plan
- Berths 212-224 (YTI) Container Terminal Improvements Project
- Berths 121-131 (Yang Ming) Container Terminal Improvements Project
- San Pedro Waterfront Project
- Westway Decommissioning
- Wilmington Waterfront Master plan (Avalon Blvd Corridor Project)
- Southwest Marine Demolition Project

Community of San Pedro

- Pacific Corridors Redevelopment Project, San Pedro

Alameda Corridor Transportation Authority and California Department of Transportation (Caltrans)

- Schuyler Heim Bridge Replacement and State Route (SR) 47 Terminal Island Expressway
- I-710 (Long Beach Freeway) Major Corridor Study

ICTF Joint Powers Authority

- Intermodal Container Transfer Facility (ICTF) Modernization and Expansion

Community of Wilmington

- Tesoro Reliability Improvement and Regulatory Compliance project
- Chemoil Terminals Corporation
- Ultramar Inc. Olympic Tank Farm
- WesPac Smart Energy Transport System Project
- Warren Oil WTU Central Facility and New Equipment Project

City of Carson

- BP Carson Refinery Safety, Compliance and Optimization Project
- ConocoPhillips Los Angeles Refinery PM10 and NO_x Reduction Projects
- ConocoPhillips Refinery Tank Replacement Project

- Kinder Morgan Terminal Expansion
- BP Logistics Project
- Shell Oil Products U.S. Carson Revitalization Project (CRP) Specific Plan (CRPSP)

City of El Segundo

- Chevron Products Company – El Segundo Refinery Product Reliability and Optimization Project
- Chevron Products Company – El Segundo Refinery Heavy Crude Project

Cities of Torrance, Harbor City, and Lomita

- ExxonMobil Rule 1105.1 Compliance Project

City of Paramount

- Paramount Refinery Clean Fuels Project

These projects include construction and/or operation activities that would occur concurrently, at least in part, with the Project, are within the Project's region of influence, and/or would potentially contribute cumulatively to the region's air quality impacts.

3.1.3.4 Impacts and Mitigation Measures

Criteria Pollutants

With regard to Impact AQ-1**,** peak daily construction activities for the Project would produce mitigated emissions that would exceed the SCAQMD regional emission thresholds (specifically NO_x). Any activity that concurrently occurs in the vicinity of Project construction would contribute additional air emission burdens to the significant levels of emissions and could cumulatively exceed other pollutant thresholds. As a result, mitigated emissions from construction of the Project would be cumulatively considerable, contributing to significant and unavoidable regional pollutant impacts.

With regard to Impact AQ-2, peak daily construction activities for the Project would produce mitigated emissions that would not exceed the SCAQMD LSTs. These LSTs are meant to be assessed on a project-specific level and are not meant for cumulative project assessment.

With regard to Impact AQ-3, peak daily operation activities for the Project would produce mitigated emissions that would exceed the SCAQMD regional NO_x. The Trucking Alternative (Alternative 3) would also exceed the emission thresholds for PM10 and PM2.5. Any activity that concurrently occurs in the vicinity of Project would add additional air emission burdens to the significant levels of emissions and could cumulatively exceed other pollutant thresholds. As a result, mitigated emissions from operation of the Project would be cumulatively considerable, contributing to significant and unavoidable regional pollutant impacts.

With regard to Impact AQ-4, peak daily operation activities for the Project would produce mitigated emissions that would not exceed the SCAQMD LSTs. These LSTs are meant to be assessed on a project-specific level and are not meant for cumulative project assessment.

Toxic Air Contaminants

With regard to Impact AQ-5, emissions of TACs from construction and operation of the Project would increase cancer and non-cancer health effects to all receptor types within the Project region compared to the existing conditions baseline. However, the Project's contribution to health effects is less than significant and would not increase health effects in the region or produce a cumulatively considerable and unavoidable contribution of airborne cancer and non-cancer effects to occupational and residential receptors.

While there are no specific additional mitigation measures proposed to reduce air toxic contaminant emissions from the Project, the Port has approved Port-wide air pollution control measures through implementation of the CAAP. The CAAP is designed with the goal of reducing the population-weighted cancer risk of port-related DPM emissions by 85 percent, in highly impacted communities located proximate to port sources and throughout the residential areas in the port region (POLA/POLB, 2010). Approval of this Project would initiate implementation of applicable CAAP measures through a future terminal lease agreement.

In developing the SPBS, the Ports recognize the importance of ensuring that new projects are designed to be consistent with the CAAP as well as with other applicable regulations, and that implementation of the Project will allow for the Ports to meet their long-term health risk and emission reduction goals. Since the Project's contribution to cancer and non-cancer health effects is less than significant, and considering the cumulative risk reductions that being mandated by POLB, the cumulative TAC impacts would be less than significant.

AQMP Implementation

For Impact AQ-6, the Project would produce emissions of nonattainment pollutants primarily from diesel-powered sources and grain handling. The 2007 AQMP proposes emission reduction measures that are designed to bring the SCAB into attainment of the NAAQS and CAAQS. The attainment strategies in this plan include mobile source control measures and clean fuel programs that are enforced at the federal and State levels on engine manufacturers and petroleum refiners and retailers. The SCAQMD adopts AQMP control measures into the SCAQMD rules and regulations, which are then used to regulate sources of air pollution in the SCAB. The Project would comply with these regulatory requirements, which are designed to implement the AQMP.

Additionally, the Project would be required to meet CAAP requirements and other control measure and mitigation measure requirements as a part of the facility lease. These additional Project control and mitigation measure requirements work in concert to implement the 2007 AQMP, and provide additional assurance that the Project's emissions sources will meet or exceed the emissions control forecasts for all approved AQMP control measures.

The POLB provides SCAG with Port-wide cargo forecasts that are used to simulate growth scenarios in the AQMP, and the attainment demonstrations in the AQMP include emissions estimated for future growth at the Port. Since the 2007 AQMP assumes growth that is consistent with the implementation of this Project, it would not exceed the future growth projections in the 2007 AQMP and it would not conflict with nor obstruct implementation of the SIP. As a result, construction and operation of the mitigated Project would result in less than cumulatively considerable contributions to the objective of implementing the applicable AQMP.

3.1.4 Mitigation Monitoring Program

Implementation of Mitigation Measures AQ-1 and AQ-2 would reduce NO_x emissions during construction to the maximum extent feasible. Mitigation Measure AQ-3 would require the periodic identification and, upon mutual agreement regarding technical and cost feasibility, implementation of feasible new air pollution reduction technologies in the future. All control measures and mitigation measures that were assumed in the analysis to reduce emissions will be a mandatory component of the facility lease.

The TTI Grain Export Terminal Installation Project mitigation measures and associated monitoring requirements for Air Quality are shown in Table 3.1-17. The Project Mitigation, Monitoring, and Reporting Program (MMRP) will require an annual report within the first year of Project approval and then annually thereafter. The MMRP will document compliance with implementing the mitigation measures approved in the Final EIR and adopted in the Project terminal lease agreement.

TABLE 3.1-17

AIR QUALITY AND HEALTH RISK MITIGATION MONITORING PROGRAM

Mitigation Measure	Responsible Party		Timing
	For Implementation	For Monitoring	
Mitigation Measure AQ-1: Obtain Crushed Miscellaneous Base (CMB) from Nearest Available Suppliers. The Project applicant shall contract for CMB from the nearest available suppliers of new or recycled CMB. The Project applicant shall provide POLB with the CMB purchase contracts showing compliance with this condition prior to hauling CMB to the site.	TTI	POLB	Prior to Hauling CMB
Mitigation Measure AQ-2: Haul Crushed Miscellaneous Base (CMB) Using Trucks Meeting USEPA Post-2007 Emissions Standards. For the hauling of CMB during Project construction the Project applicant, or their construction contractor, shall only contract with trucking firms that can supply haul trucks that meet USEPA Post-2007 emission standards. The Project applicant shall provide the Port with haul truck specifications demonstrating compliance with this condition prior to hauling CMB to the site.	TTI	POLB	Prior to Hauling CMB
Mitigation Measure AQ-3: Periodic Technology Review. To promote new emission control technologies, the tenant shall implement every five years following the effective date of the lease agreement, a review of new air quality technological advancements, subject to mutual agreement on operational feasibility, technical feasibility, and cost-effectiveness and financial feasibility, which agreement shall not be unreasonably withheld. If a technology is determined to be feasible in terms of cost, technical and operational feasibility, the tenant shall work with the Port to implement such technology.	TTI	POLB	Operation

CHAPTER 5
OTHER REQUIRED SECTIONS

5.1 UNAVOIDABLE SIGNIFICANT IMPACTS

Development of the proposed Project would result in significant, unavoidable impacts on Air Quality, both project specific and cumulative impacts, and on Global Climate Change, as described below.

5.1.1 Air Quality

The SCAB is currently designated as non-attainment for the NAAQS and CAAQS for O_3, PM10, and PM2.5, and non-attainment for the CAAQS for NO_2 (CARB, 2011; USEPA, 2011). As discussed in detail in Section 3.1, construction and operation of the proposed Project would contribute to an increase in air pollutant emissions. The Project's construction and operation would result in peak daily air pollutant emissions that would exceed SCAQMD NO_x regional daily thresholds, even with implementation of Mitigation Measures AQ-1 and AQ-2. Additionally, the project's regional air quality emissions are considered cumulatively significant along with the air quality emissions from the reasonably foreseeable Port projects. No additional mitigation is available to reduce these impacts to less than significant, as all feasible mitigation has been applied to the Project.

5.1.2 Global Climate Change

As discussed in Section 3.4, the total annualized GHG emissions generated from proposed Project construction and operation would be above the SCAQMD significance threshold of 10,000 metric tons CO_2e per year. Mitigation Measures GCC-1 and GCC-2 are recommended, which would provide funding for the Port's GHG Program (GCC-1), and require the applicant to reduce indirect GHG emissions from electricity use (GCC-2). Mitigation Measures AQ-1 and AQ-2 would also reduce GHG emissions during construction. Additionally, Mitigation Measure AQ-3 has the potential to reduce GHG emissions if zero emission equipment is determined to be feasible and implemented at the Project site in the future. No additional mitigation is available to further reduce GHG emissions to reduce the GCC impacts to less than significant.

5.2 SIGNIFICANT IRREVERSIBLE IMPACTS

5.2.1 Introduction

The CEQA Guidelines (Section 15126.2(c)) require that an EIR identify significant irreversible environmental changes that would be caused by a proposed project. As stated in Section 15126.2(c):

> *Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impact and, particularly, secondary impacts (such as highway improvements which provide access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.*

5.2.2 Analysis of Irreversible Changes

Construction of the proposed Project would require an irretrievable commitment of natural resources from direct consumption of fossil fuels, construction materials, the manufacture of new equipment that largely cannot be recycled at the end of the Project's useful lifetime, and energy required for the production of materials. However, the Project does not represent an uncommon construction project that uses an extraordinary amount of raw materials in comparison to other urban or industrial development projects of similar scope and magnitude.

The proposed Project would develop the site for Port-related activities. Resources that are committed irreversibly and irretrievably are those that would be used by a project on a long-term or permanent basis. The proposed Project would not create any new land area and would therefore not consume any marine acres in the Port. Water would be used during construction of the Project for dust and fire suppression, as needed. During operations of the proposed Project, water would be used for office/domestic purposes (625 gallons per day), the unloading building (25 gallons per day), and the loading building (25 gallons per day).

Fossil fuels and energy would be consumed in the form of diesel, oil, and gasoline used for equipment and vehicles during construction and operation activities. During operations, diesel, oil, and gasoline would be used by terminal handling equipment (e.g., hostlers/ yard tractors), and vehicles. Electrical energy would be consumed during construction and operations. These energy resources would be irretrievable and irreversible. The amounts of irretrievable resources needed for the Project would be easily accommodated by existing supplies. Although the increase in the amount of materials and energy used would be insignificant, they would nevertheless be unavailable for other uses.

CEQA Guidelines Section 15126.2(c) requires that an EIR evaluate the irretrievable commitments of resources to assure that current consumption is justified. The irretrievable commitment of resources required by the proposed Project is justified by the objectives of the Project, which are to capitalize on existing rail and container yard facilities to receive grain and DDGS for export, while requiring no changes to shipping vessel operations.

5.3 GROWTH INDUCEMENT

5.3.1 Introduction

CEQA requires a discussion of the ways in which a proposed project could induce growth and the impacts of such growth. The CEQA Guidelines (Section 15126.2 (d)) identify a project to be growth-inducing if it fosters economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment. New employees hired for proposed commercial and industrial development projects and population growth resulting from residential development projects represent direct forms of growth. Other examples of projects that are growth-inducing are the expansion of urban services into a previously un-served or under-served area, the creation or extension of transportation links, or the removal of major obstacles to growth.

It is important to note that these direct forms of growth have secondary effects of expanding the size of local markets and attracting additional economic activity to the area. Typically, the growth-inducing potential of a project would be considered significant if it fosters growth or a concentration of population above what is assumed in local and regional land use plans, or in projections made by regional planning authorities, and such growth would result in significant impacts to other resources. Significant growth impacts could also occur if the project provides infrastructure or service capacity to accommodate growth levels beyond those permitted by local or regional plans and policies.

5.3.2 Direct Growth-Inducing Impacts

Construction of the proposed Project would occur over an 18-month period, requiring an estimated 117 workers per day during the peak construction period. The short-term construction employees would likely be accommodated by the existing labor pool within the greater Long Beach area. Because of the existing sizable local and regional labor pool, no significant influx of workers into the local communities is anticipated. Thus, due to the minimal number of construction employees and the existing supply for workers in the local community, any increase in population and housing as a result of construction of the proposed Project would be less than significant.

During operation of the proposed Project, a total staff of 61 would be required to operate the grain transloading facility, 33 for the first shift and 28 for the second shift. Rail

unloading operations would require 5 staff and loading operations would require 28 staff, including 22 for container loading, 2 office workers, 2 staff for operating the storage facilities (silos), and 2 agricultural inspectors. While the Project-related increase in permanent employment and earnings would be beneficial to Los Angeles County, it would have little impact compared to the total earnings in the southern California economy. Due to the existing supply of workers in the local community, increases in population and housing are not anticipated to occur as a result of operation of the proposed Project.

Furthermore, the additional 61 jobs that would be created during operation of the Project are considered insignificant compared to regional jobs. Therefore, because the Project would not involve the development of new housing, and would not significantly affect the economy of the region, the Project would not generate significant direct growth-inducing impacts. In addition, growth inducement is typically related to major infrastructure and residential projects and not to proposed industrial development in industrial areas.

5.3.3 Indirect Growth-Inducing Impacts

A project would indirectly induce growth if it would trigger the construction of new community service facilities that could increase the capacity of infrastructure in an area that currently meets the demands (e.g., an increase in the capacity of a sewage treatment plant or the construction or widening of a roadway beyond that which is needed to meet existing demand).

The proposed Project would include utility modifications to accommodate project operations, such as the addition of a storm drain lines, catch basins, and connections to an existing fire hydrant and water supply lines in the Pier T terminal. Sufficient water supplies are available to serve the Project from existing entitlements and resources and no new or expanded water treatment or wastewater treatment facilities would be required. Therefore, the Project and would not indirectly induce growth with respect to triggering the need for new service facilities.

The Project would facilitate the transport of grain and DDGS from the Midwest to China, utilizing existing rail and shipping infrastructure, with only minor modifications to rail infrastructure adjacent to the Project site. Therefore, the Project may indirectly increase agricultural earnings in the Midwest and China; however, it would not be expected to trigger the need for new community service facilities.

The short-term indirect effects from construction could incrementally increase activity in nearby retail establishments as a result of construction workers patronizing local establishments. However, the long-term effects from the Project would be negligible relative to the size of the regional economy. Therefore, the Project would not generate significant indirect growth-inducing impacts.