

## **CHAPTER 5**

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### **CUMULATIVE IMPACTS**

Introduction  
Related Projects  
Aesthetics  
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## 5.0 CUMULATIVE IMPACTS

### 5.1 INTRODUCTION

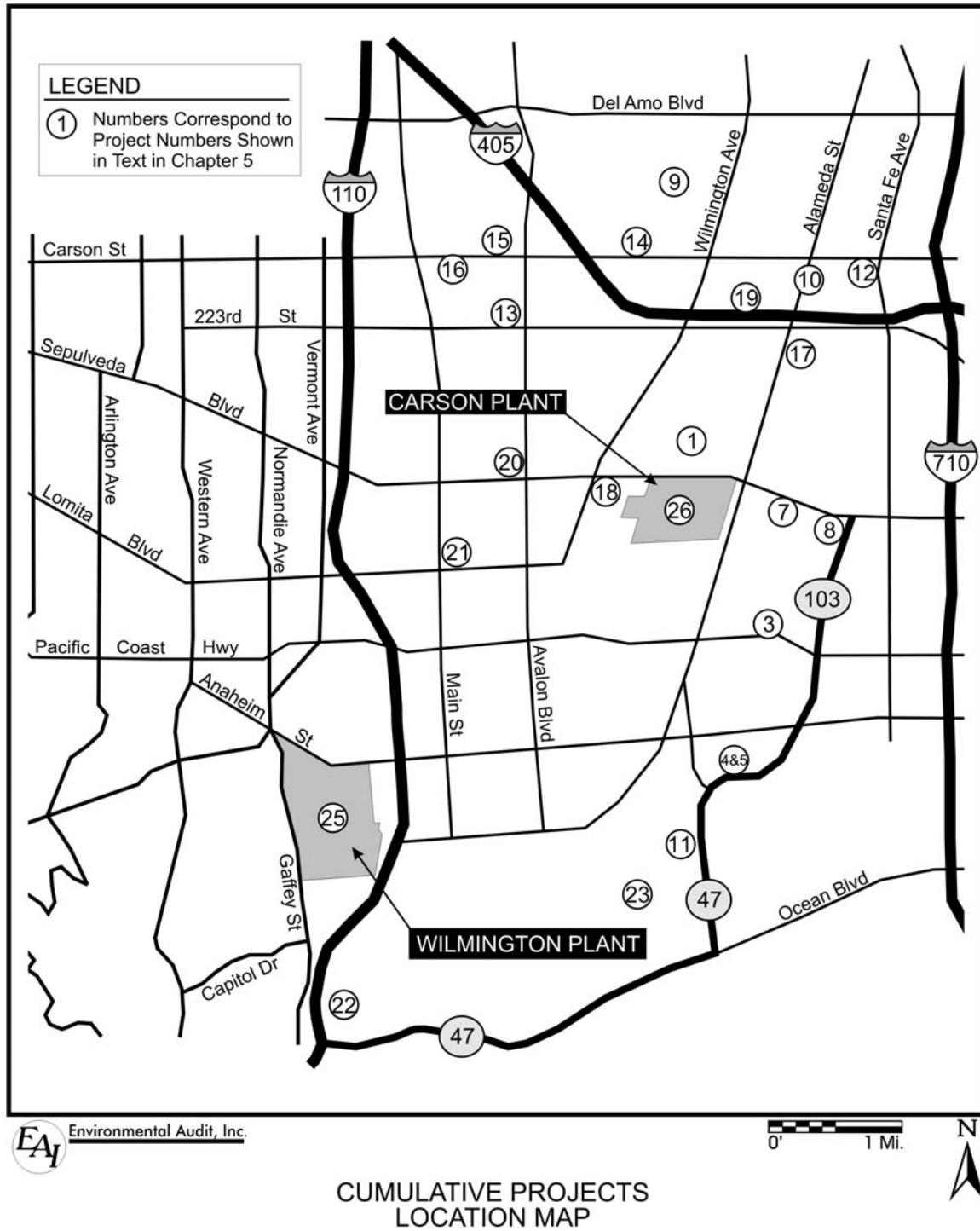
CEQA Guidelines §15130(a) requires an EIR to discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable, as defined in §15065(a)(3). The only potentially significant adverse impacts identified for the ConocoPhillips proposed projects were for air quality impacts during construction activities. There are a number of projects proposed for development in the vicinity of the Carson and Wilmington Plants, which may contribute cumulative impacts to those generated by the proposed PM10 and NOx Reduction Project. These include other refinery and industrial projects, the Alameda Corridor Transportation Authority projects, as well as projects planned in the Cities of Carson and Wilmington. Figure 5-1 shows the locations of the cumulative projects in the City of Carson. The discussion below lists projects which are reasonably expected to proceed in the foreseeable future, i.e., project information has been submitted to a public agency. Cumulative construction impacts were evaluated herein if the major portion of construction is expected to occur during the same construction period as the ConocoPhillips Los Angeles Refinery – PM10 and NOx Reduction Project.

Public agencies were contacted to obtain information on projects within the Carson and Wilmington areas. Figure 5-1 identifies by number the location of each of the projects discussed below. The numbers are used to identify the related projects throughout the discussion of cumulative impacts. Local impacts were assumed to include projects which would occur within the same timeframe as the ConocoPhillips Los Angeles Refinery - PM10 and NOx Reduction Project and which are within about a two-mile radius of the Refinery sites. These projects are identified in more detail in Section 5.2.

Some of the resources affected by the proposed ConocoPhillips Refinery project would primarily occur during the construction phase, e.g., traffic. Other impacts would primarily occur during the operational phase, e.g., aesthetics and water quality. Still other impacts would occur during both phases, e.g., air quality.

### 5.2 RELATED PROJECTS

In 2003, the SCAQMD adopted Rule 1105.1 – Reduction of PM10 and Ammonia Emissions from FCC Units. This rule establishes reduced PM10 and ammonia limits for FCCU regenerators located at refineries. A number of the related refinery projects are being undertaken to comply with Rule 1105.1. Other proposed projects within the general Wilmington/Carson/Long Beach area are described below. The number listed after the project corresponds with the number shown on the location map in Figure 5-1.



### **5.2.1 BP CARSON REFINERY SAFETY, COMPLIANCE AND OPTIMIZATION PROJECT (#1)**

BP is proposing a safety, compliance and optimization project at its existing Carson Refinery (Refinery). The proposed project will involve physical changes and additions to multiple process units and operations as well as operational and functional improvements within the confines of the existing Refinery. The portion of the proposed project related to enhancing safety will focus on modifications to the Coker Gas Debutanizer pressure relief valve, as well as adding equipment to the Fluid Catalytic Cracking Unit (FCCU), Fluid Feed Hydrodesulfurization (FFHDS), vapor recovery system, and flare system. The portion of the proposed project related to compliance will involve physical modifications to existing refinery units including the FCCU, FFHDS, vapor recovery system, and flare system so as to comply with multiple South Coast Air Quality Management District (SCAQMD) rules (e.g., Rule 1105.1 – PM10 and Ammonia Emissions from Fluid Catalytic Cracking Units, Rule 1118 – Control of Emissions From Refinery Flares, and Rule 1173 – Control of VOC Leaks and Releases from Components at Petroleum Facilities and Chemical Plants) and to implement the terms of a settlement agreement between the SCAQMD and BP. Other modifications are proposed that will optimize operations relating to various existing refinery units including the FFHDS, the FCCU, the Alky Merox Unit, the Alkylation Unit, the Hydrocracker Unit, and the Sulfur Plant at the Refinery. An FEIR (SCH No. 2005111057) for the BP project was completed and certified on September 15, 2006. Construction began during the fourth quarter of 2006 and is expected to continue into the second quarter of 2009. Construction and operational activities are expected to overlap with the proposed ConocoPhillips Refinery project and will be included in the cumulative impact analysis.

### **5.2.2 EXXONMOBIL TORRANCE REFINERY RULE 1105.1 COMPLIANCE PROJECT (# 2, located off the map on Figure 5-1)**

ExxonMobil Oil Corporation is proposing modifications to the FCCU at its Torrance Refinery solely to comply with new PM10 and ammonia emission limits set by SCAQMD Rule 1105.1. The proposed project includes the installation of new air pollution control equipment (i.e., two new dry ESPs) downstream of the two existing ESPs to control the PM10 emissions generated from the existing FCCU's regenerator, an L-shaped building for electrical and control gear with associated underground electrical lines, and the relocation of a sewer line.

The ExxonMobil proposed project will also include new anhydrous ammonia injection piping (aboveground) from the existing storage tanks to the new facilities. There are currently two existing bypass emergency stacks on the FCCU regenerator exhaust at the Torrance Refinery. The stack height of these existing emergency stacks will be cut off, capped, and replaced with a new emergency bypass duct around the SCR unit. A waste heat boiler is also included as part of the proposed project. An FEIR (SCH No. 2006091112) was completed and certified on March 23, 2007. Construction of the ExxonMobil Rule 1105.1 Compliance project is scheduled to begin in April 2007 and to

be complete by mid-January 2009. The construction and operational phase of the ExxonMobil project will overlap with portions of the proposed ConocoPhillips project (SCAQMD, 2007a).

### **5.2.3 SHELL OIL PRODUCTS WILMINGTON REFINERY RULE 1105.1 COMPLIANCE PROJECT (#3)**

Shell operates a series of cyclones followed by three dry ESPs to control particulates from the FCCU. The ESPs were installed over 30 years ago. Because of their age, the existing ESPs are no longer as efficient in capturing particulates as the new models currently available. Shell operators have decided to remove the three existing ESPs and install three new ESPs as control equipment for the FCCU to comply with SCAQMD Rule 1105.1. A Negative Declaration (SCH No. 2006031004) was prepared for the Shell Rule 1105.1 Compliance Project and certified by the SCAQMD on April 27, 2006. Construction of the Shell Rule 1105.1 Compliance project began in May 2006 and is expected to be complete by third quarter 2007. The construction and operational phase of the Shell project may overlap with portions of the proposed ConocoPhillips project (SCAQMD, 2006b).

### **5.2.4 ULTRAMAR INC., VALERO WILMINGTON REFINERY RULE 1105.1 COMPLIANCE PROJECT (#4)**

Ultramar's proposed Rule 1105.1 Compliance Project includes construction of one new dry ESP to comply with the filterable PM10 and ammonia requirements. The project would supplement two existing ESPs (located downstream of the FCCU), which are control devices to reduce FCCU PM emissions, and have a common stack. These two ESPs will be supplemented with the new ESP, which will be located downstream of the two existing ESPs, and the existing regenerator flue gas stack will be replaced with a new flue gas stack. A Draft Negative Declaration was prepared for the Ultramar Rule 1105.1 Compliance Project concluding that the proposed project did not generate any new adverse environmental impacts not already disclosed in the 2003 Final EA for Rule 1105.1. The Draft Negative Declaration for the Ultramar project was released for public review on February 6, 2007. The comment period closed on March 7, 2007 (SCAQMD, 2007b). The construction and operational phase of the Ultramar 1105.1 project and the ConocoPhillips project projects could overlap.

### **5.2.5 ULTRAMAR INC. – VALERO WILMINGTON REFINERY; ALKYLATION IMPROVEMENT PROJECT (#5)**

On February 12, 2003, the Ultramar Inc. - Valero Wilmington Refinery and the SCAQMD entered into a Memorandum of Understanding (the MOU) providing for termination of the storage and use of concentrated hydrofluoric acid at the Valero refinery.

As part of the MOU, the Valero refinery agreed to adopt a modified alkylation process, which eliminates the use of concentrated HF catalyst by substituting it with the

proprietary Reduced Volatility Alkylation Process (ReVAP). ReVAP incorporates a suppressant in the HF, which reduces HF volatility in the event of an accidental release with a concurrent reduction in hazard risks in the surrounding area. Use of this modified process meets the SCAQMD's objectives with respect to elimination of concentrated HF. Incorporation of ReVAP requires substantial improvements to the Alkylation Unit and related units and systems of the Valero refinery (SCAQMD, 2004a).

The Valero project consists of the following principal components:

- Modify the existing Alkylation Unit to incorporate the ReVAP process, and enhance the alkylate production capacity to 20,000 barrels per day (BPD).
- Increase the existing Butamer Unit capacity to 17,000 BPD to provide sufficient feed for the enhanced Alkylation Unit with the ReVAP process. Modifications to the Merox Treating Unit, Light Ends Units, and Naphtha Hydrotreater Unit, and installation of a new fuel gas treating system are also required.
- Upgrade refinery utility systems to support the improvements, including a new steam boiler with an SCR unit, a new hot oil heater with an SCR unit, modifications to an existing hot oil heater, a new cooling tower, as well as modifications to an existing cooling tower, a new butane storage sphere, a new propane storage bullet, a new hydrocarbon flare, a new aqueous ammonia storage tank, and relocation of storage tanks.

Construction of the alkylation improvement project is expected to be completed in the second quarter of 2007, therefore, construction activities may overlap with the proposed project at the ConocoPhillips Refinery. Operational impacts will overlap with the proposed ConocoPhillips project and, therefore, will be included in the cumulative impacts analysis.

#### **5.2.6 SCAQMD RULE 1118 COMPLIANCE PROJECTS (#6)**

In 2005, the SCAQMD approved revisions to SCAQMD Rule 1118 – Control of Emissions from Refinery Flares. The revised rule will: (1) prohibit the flaring of vent gases except during emergencies, shutdown/startups, turnarounds, and essential operational needs; (2) require affected facilities to analyze the specific cause of major flaring events (3) require refineries that exceed the performance targets to develop and implement flare management plans to minimize emissions; and (4) require affected facilities to meet emission performance levels by certain dates. Compliance with this rule is expected to require modifications to flare gas recovery/treatment systems at several facilities (up to seven facilities) (SCAQMD, 2005b) and could overlap with the proposed ConocoPhillips project.

The cumulative analysis will use the assumptions in the Final EA for Proposed Amended Rule 1118 – Control of Emissions from Refinery Flares (SCAQMD No. 102605MK,

October 2005) to estimate construction activities at other refineries. This analysis is expected to provide a conservative analysis of construction impacts associated with Rule 1118 compliance because construction emissions for some refineries have already been included as part of other proposed projects (e.g., the BP Carson Refinery Safety, Compliance and Optimization Project includes a Rule 1118 compliance project). The cumulative analysis will also use only the estimated emission reductions from all refineries as reported in the 2005 Final EA (SCAQMD, 2005c) so that double counting of emission reductions is avoided.

### **5.2.7 KINDER MORGAN CARSON TERMINAL EXPANSION (#7)**

The Kinder Morgan Carson Terminal is located at 2000 East Sepulveda Boulevard, Carson, California, adjacent to the southeast intersection of Alameda Street and Sepulveda Boulevard. The site lies within an industrialized area bounded by existing refineries and petroleum storage tanks on the north and east, and Alameda Street on the west. The project involves the construction of eighteen 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. The proposed Kinder Morgan project would increase the petroleum storage capacity of the facility by up to 25 percent over a three- to ten-year period, depending on the market demand for petroleum product storage. The facility is operated by Kinder Morgan Energy Partners, L.P. (KMEP) and the Final EIR was prepared by the City of Carson for this project (City of Carson, 2005).

The 80,000-barrel tanks would be used to store refined petroleum products such as regular unleaded gasoline, premium unleaded gasoline diesel fuel, jet fuel, alkylates, reformates, and blend stocks. The 30,000-barrel transmix tank would be used to store small volumes of product that are commingled within the pipeline system during product transfers (City of Carson, 2005).

The new tanks would be connected to existing gasoline, diesel, and jet fuel pipelines. A new shipping and receiving manifold with pumps and interconnecting piping would be installed to integrate the new tanks within the existing facility. The manifold would be designed to have a 15,000-barrel per hour throughput capacity with the potential to be upgraded to a maximum 20,000-barrel per hour throughput capacity. This compares to the existing manifold and piping system, which has a 10,000-barrel per hour throughput capacity (City of Carson, 2005).

Construction activities for the KMEP project are expected to occur over a 10-year period and may occur during the same timeframe as the ConocoPhillips proposed project. Operational impacts will overlap with the proposed ConocoPhillips project and, therefore, will be included in the cumulative impacts analysis.



### **5.2.8 CHEMOIL TERMINALS CORPORATION (#8)**

The Chemoil Terminals Corporation is located at 2365 E. Sepulveda Boulevard, Carson. The Chemoil facility is an organic liquid storage facility and its operators are proposing to expand the existing terminal by the addition of 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. The City of Carson is in the process of preparing a CEQA document for this development; however, no CEQA document is currently available for this project (personal communication, John Signo, City of Carson). Therefore, some of the environmental impacts associated with this project are unknown.

The Chemoil project, if approved, is likely to be constructed during the same time period as the ConocoPhillips project and will be included in the cumulative impacts analysis, to the extent that impacts can be estimated based on limited information.

### **5.2.9 SHELL CARSON TERMINAL MASTER PLAN (#9)**

Redevelopment activities have been proposed at the Shell Carson Terminal, located at 20945 S. Wilmington Ave. Shell operators have proposed modifications to the terminal as follows:

Area I: Operators of the tank farm will install 17 more product storage tanks over an estimated 10 to 15-year period.

Area II: This area of the Shell Carson Terminal is planned to have a low-impact surface redevelopment such as a storage, distribution center, auto park or equivalent.

Area III: A 45-acre chemical plant is located in this area and a biodiesel manufacturing facility has been proposed at this location.

Area IV: Shell has proposed to upgrade an existing ethanol unloading, and distribution center.

Area V: A new City maintenance yard and other related facilities are proposed for this location.

The Master Plan is in the early planning stages and the City of Carson will be preparing a Draft EIR on this site in the near future. Sufficient data to evaluate the cumulative impacts of the potential development associated with this project are not currently available. Therefore, cumulative impacts will be limited to a qualitative analysis.

### **5.2.10 ALAMEDA CORRIDOR TRANSIT AUTHORITY PROJECTS**

The Alameda Corridor is located in southern Los Angeles County, California, running from the ports of Long Beach and Los Angeles 20 miles north to downtown Los Angeles, primarily along and adjacent to Alameda Street. The project extends through or borders the cities of Vernon, Huntington Park, South Gate, Lynwood, Compton, Carson, Los Angeles, and the County of Los Angeles.

The Alameda Corridor is a 20-mile-long rail cargo expressway linking the ports of Long Beach and Los Angeles to the transcontinental rail network near downtown Los Angeles. It is a series of bridges, underpasses, overpasses and street improvements that separate freight trains from street traffic and passenger trains, facilitating a more efficient transportation network. The project's centerpiece is the Mid-Corridor Trench, which carries freight trains in an open trench that is 10 miles long, 33 feet deep and 50 feet wide between State Route 91 in Carson and 25th Street in Los Angeles. Construction of the Alameda Corridor began in April 1997 and operations began in April 2002. The major portions of the ACTA project (i.e., railroad improvements and grade separations along Alameda Street) have been completed and are part of the existing environmental setting. However, several additional projects being developed by ACTA are described below (ACTA, 2006). Detailed information to evaluate the impacts of proposed ACTA projects are not currently available (Personal communication with Connie Rivera). Therefore, the projects will be qualitatively analyzed in the cumulative analysis.

#### **ACTA - Shuttle Train Pilot Program (#10)**

ACTA recently adopted an Expanded Mission to address cargo growth at the ports and to optimize use of the existing rail and highway network while larger scale projects are planned and funded. As part of its Expanded Mission, ACTA identified initiation of a Shuttle Train Pilot Program as a priority goods movement project (ACTA, 2006).

The shuttle train pilot program addresses the need to develop a short-haul rail alternative to trucking cargo from the ports to inland distribution centers and storage facilities (ACTA, 2006). If successful, this pilot program will lead to a large scale shuttle train service that will alleviate truck traffic along the I-710 and I-110 freeways and major east-west freeways, by transporting containerized cargo via rail from the port complex to a rail facility in the Inland Empire. From the rail facility, cargo will be trucked a short distance to warehouse and distribution centers. The pilot shuttle train, as well as the future permanent service, would use the existing Alameda Corridor and the existing railroad mainlines (ACTA, 2006).

This project is currently being discussed by ACTA but has not received funding or necessary approvals. No CEQA document has been prepared for this project at this time and no estimate of when or if the project will be constructed is currently available (personal communication, Connie Rivera, ACTA).

**ACTA - SR-47 Port Access Expressway (#11)**

Improvements to State Route 47 (SR-47), in the vicinity of the ports, will enhance local goods movement. Along with Caltrans, ACTA is proposing to develop a four-lane expressway from Terminal Island to Alameda Street, north of Anaheim Street, and south of Pacific Coast Highway, that includes the replacement of the seismically deficient Schuyler Heim Bridge over the Cerritos Channel (ACTA, 2006).

The 2.2 mile-long SR-47 Port Access Expressway will create a more direct route to local warehouses and other transportation corridors, and will reduce congestion as well as improve public safety and regional air quality. This expressway will bypass congestion-producing traffic signals and five at-grade rail crossings. This project will reduce congestion on the I-710, I-110 Freeways and surrounding bridges (ACTA, 2006). Sources for funding the \$40 million design and \$350 million construction have not yet been determined. Completion of construction is expected in 2011 but is based on available funding.

The draft EIR is currently being prepared. Detailed information to evaluate the impacts of the SR-47 project is not currently available (Personal communication with Connie Rivera). Therefore, the project will be qualitatively analyzed in the cumulative analysis.

**ACTA - Inland Truck Depot**

Working with private partners, ACTA is facilitating the development of an inland truck depot(s) that will improve the transport of cargo throughout southern California during off-peak hours. The inland truck depot(s) will be used by truckers to temporarily park cargo containers prior to being delivered to distribution centers during normal business hours. This innovative program will help alleviate port-related truck traffic on major highways by maximizing the use of extended gate hours at the port complex and it will help to accommodate the projected increases in cargo volumes.

Other key components of the ACTA Expanded Mission include:

- Support extended gate hours at the ports;
- Increase the use of on-dock rail facilities;
- Support the development of new near-dock rail facilities;
- Examine alternatives to mitigate impacts of empty container storage in the harbor area; and
- Participate in regional goods movement studies.

These critical strategies, coupled with related efforts underway at both ports, can significantly reduce projected port-related truck traffic and improve air quality while meeting the future cargo needs of southern California and the nation. This project is in the early design phase, so details on the locations of the depots and the potential

environmental impacts are not known. Therefore, the project will be qualitatively analyzed in the cumulative analysis.

#### **5.2.11 SOUTH REGION HIGH SCHOOL NO. 4 (#12)**

The Los Angeles Unified School District (LAUSD) is proposing to construct a new high school to educate 1,809 students in grades 9 through 12 at the corner of Santa Fe Avenue and Carson Street in the City of Long Beach. The school is intended to relieve overcrowding at Carson and Banning high schools. The school would be approximately 182,000 square feet in size and facilities would include 67 classrooms, a library/media center, a performing arts center, two gymnasiums, a multi-purpose facility, a career center, a health center, set-aside classrooms, a student store, centralized administrative offices, and a police/security facility. The remainder of the site would be developed with recreational and athletic facilities. Subterranean faculty/staff parking would be provided at the northern end of the site. Construction is proposed to start in the second quarter of 2008 and take approximately 30 months to complete, with opening planned for fall 2011. Construction and operation of the school will overlap with the proposed ConocoPhillips Refinery project and the cumulative impacts will be analyzed. The LAUSD has prepared a draft EIR for the proposed project (SCH No. 2005041116) ([www.laschools.org/project-status/one-project?project\\_number=56.40019](http://www.laschools.org/project-status/one-project?project_number=56.40019) , January, 2007).

#### **5.2.12 OTHER PROJECTS IN THE CITY OF CARSON**

There are other projects in the City of Carson that are in the planning phase and which could add to cumulative impacts in the area. After reviewing the Development Status Report on the City of Carson website, and sharing correspondence with the City's planning department, nine such projects have been identified. The relevant information pertaining to these projects is presented in Table 5-1. Limited information is available on most of these projects as CEQA documents were not prepared for most of the City of Carson projects (personal communication, Steve Newberg and John Signo, City of Carson, January 2007). The projects with available information to provide a project description are discussed below. For some projects, the only information available is the information on the project size (i.e., the projects in Table 5-1) Cumulative impacts for these projects will be evaluated to the extent feasible using the URBEMIS model and default assumptions.

Details of project development were available from the City of Carson Planning Department (personal communication John Signo and Steve Newberg, City of Carson) for the Samoan Missionary Church (No. 14 in Table 5-1), located at 1249 E. Carson Street, midway between Avalon Boulevard and S. Wilmington Avenue. The proposed project is comprised of building a new 25,000 square-foot church on vacant land totaling 1.55 acres. The church building will include a sanctuary, community hall, lobby, museum, and office space. The area around the church is designated as high density residential land use which is zoned RM-25. The site lies within a residential area bounded by single-family residences to the north, single-family residences and

commercial uses to the east, single-family residences to the south and multifamily residences to the west. CEQA documents are not available for these projects.

**TABLE 5-1**

**Related Projects in the City of Carson<sup>(1)</sup>**

<b>Map No.</b>	<b>Address/Location</b>	<b>Size in units</b>	<b>Project Description</b>	<b>Distance from Proposed Project</b>
13	643 E. 223 <sup>rd</sup> Street	40 attached units on 2.76 acres	Residential Units	< 1 ½ miles
14	1243 – 1249 E. Carson Street	25,000 square feet	Church and Community Hall	< 1 ½ miles
15	616 E. Carson Street	90 units	Residential	< 1 ½ miles
16	NW corner of Carson St./Grace Ave.	98 units	Residential	< 1 ½ miles
17	Off dock USA Container Terminal Project, 22700 South Alameda Street	13.5 acre container storage facility	Industrial	< 1 ½ miles
18	BP Integrated Supply and Trading 1150 E. Sepulveda Blvd.	2 new storage tanks	Industrial	< 1 ½ miles
19	2250 220 <sup>th</sup> Street	102,000 square feet	Industrial	< 1 ½ miles
20	651 E. Sepulveda Blvd.	146,000 square feet	Retail (Target)	< ½ mile
21	101-155 E. Lomita Blvd.	123,340 square feet	Retail/ Commercial	< 1 mile

(1) Source: City of Carson Development Status Report, e-mail correspondence with Steve Newberg and John Signo, City of Carson, January 2007.

Two new storage tanks are being proposed by the BP Integrated Supply and Trading (IST) Division (#18 in Table 5-1), south of Sepulveda Boulevard and east of Wilmington. The City of Carson is the lead agency for this project and has only received preliminary information regarding this project. The City of Carson has indicated that a CEQA document will be required, but sufficient data regarding the project are not currently available. Preliminary information indicates that the two new storage tanks will be about 260 feet in diameter with a storage capacity of about 250,000 barrels each for a total storage capacity of 500,000 barrels. The storage tanks will be used to store crude oil. It will be assumed that the construction of the storage tanks occurs during the construction phase of the proposed project, because the construction phase of the proposed project spans from the end of 2006 through the first quarter of 2009.

### 5.2.13 PORT OF LOS ANGELES (# 22)

The Port of Los Angeles (POLA) is continuously developing plans to handle growing volumes of imports and exports (expected to double in the near future) with greater efficiency. These plans are ongoing and seismic engineering, terminal development, transportation improvements and waterfront development. Below are summaries of the plans currently in progress to the extent that information is available ([www.portoflosangeles.org/](http://www.portoflosangeles.org/)). The information regarding the availability of CEQA documents is provided for each project when it is available.

#### **Terminal Development**

- *Berths 97-109 China Shipping Development Project:* The proposed project consists of a three-phase project to construct a container terminal with 2,500 feet of wharf, 134 acres of backland, two bridges and two buildings. Phase I construction complete. An EIR/EIS has been prepared for this project (PLAX, 2006).
- *Berths 121-131 Yang Ming Container Terminal:* The proposed project consists of a three-phase program to upgrade a container terminal with 3,500 feet of new wharves to accommodate deep draft vessels and 12 container cranes. Additional work includes redevelopment of 28 acres of backland, terminal buildings and rail improvements. Project NOP/NOI anticipated in early 2007. Cumulative impact analysis will include information where available.
- *Berths 136-147 TraPac Terminal Expansion Program:* The proposed project consists of redeveloping approximately 110 acres and develop and additional 53 acres of terminal land. Improvements include construction of 2,600 feet of new wharf, five new cranes, 100-foot gauge crane rail, new buildings and entry gates, new on-dock rail facility and Alternative Maritime Power™ program wharf installation. A Draft EIR/EIS is currently being prepared and completion is anticipated in 2007. Cumulative impacts analysis will include information where available.
- *Berths 171-181 Terminal Redevelopment:* This project includes redeveloping the existing 44-acre Pasha breakbulk terminal. Improvements include environmental soil remediation, wharf upgrades, 525 foot new wharf extension, and 12-acre expansion of terminal backland. A Project EIR is currently under preparation and is expected to be complete in 2007. Cumulative impacts analysis will include information where available.
- *Berths 226-236 Container Terminal Reuse Program:* The proposed project consists of a redevelopment of the existing container terminal for optimal utilization and operational efficiencies. Project scope includes

construction, reconstruction and improvements to wharves, adjacent backland, crane rails, lighting, utilities, new gate complex, grade crossings and modification of adjacent roadways and railroad tracks. Cumulative impacts analysis will include information where available.

- *Berths 212-224 YTI Wharf Upgrades, POLA:* The proposed project consists of a wharf modifications at the YTI Marine Terminal. Project involves wharf upgrades, backland reconfiguration and new buildings. NOP/NOI anticipated Spring 2007. Cumulative impacts analysis will include information where available.
- *Berths 212-226 Evergreen Expansion, Terminal Island, POLA:* The proposed project consists of a expansion of the Evergreen Marine Terminal. Lease boundary changes, gate improvements, wharf modifications, cranes and new buildings. Cumulative impacts analysis will include information where available.
- *Berths 302-205 APL Container Terminal:* The proposed project consists of a reconfiguration of wharves and backlands. Expansion and redevelopment of the APL Terminal. NOP/NOI anticipated early 2007. Cumulative impacts analysis will include information where available.
- *Berths 206-209 Interim Container Terminal Reuse Project:* The proposed project consists of a proposal to allow interim reuse of former Matson Terminal while implementing green terminal measures. The Final EIR for this project has been certified; however, the project is on hold.

### **Water Front Development**

Extensive waterfront development is expected to continue over the next decade as various project milestones are met. New commercial development along the waterfront is expected to directly benefit surrounding harbor communities and boost local tourism. Additional waterfront development updates and information can be found at [www.sanpedrowaterfront.com](http://www.sanpedrowaterfront.com). The San Pedro Waterfront and Promenade Master Development Plan is currently in the Drafting EIR/EIS phase of the environmental review process. The projects that are expected to be evaluated in the EIR/EIS are identified below.

***San Pedro Waterfront:*** The San Pedro waterfront development project is a long-term plan to develop 400 acres of Port property along the eight-mile stretch of waterfront from the Vincent Thomas Bridge to the Federal Breakwater in San Pedro. Designed to bring the community closer to the water and triple the amount of existing open space, this development is expected to dramatically change the appearance and attractions of the Port's working waterfront.

The entire development area is divided into six districts that focus on individual uses and traits, with incremental development along each portion of the

waterfront. Heading south along the development area, the six incorporated districts are the Piers, Downtown Waterfront, S.P. Slip/Ports O' Call, Marina/Resort, Beaches and Warehouse Districts.

**Gateway Plaza:** Plans for the Gateway Plaza at Harbor Boulevard and Swinford Street include a fountain and water feature, streetscape improvements and green spaces along the new pedestrian promenade. The centerpiece of the Downtown Waterfront District is 6th Street, the civic and cultural stage for San Pedro, which serves as an anchor for businesses in the upland downtown areas. Linked by a new town square across Harbor Boulevard, the Los Angeles Maritime Museum and City Hall will accent the historical area, with the proposed addition of a new maritime exposition building serving as a seaside "convention center."

**Wilmington Waterfront:** In October 2004, the Los Angeles Board of Harbor Commissioners approved the community's conceptual plan for development of the Wilmington waterfront, which includes 75 acres of land along the Avalon Boulevard Corridor, between Harry Bridges Boulevard and C Street. Approved by the Port of Los Angeles Community Advisory Committee (PCAC) in March 2004 and endorsed by the Los Angeles City Council in June 2004, the Preferred Community Alternative Plan focuses on open space and waterfront accessibility.

The three guiding principles for Wilmington stakeholders include operational buffer zones, direct waterfront access and community development along Avalon Boulevard. Other Wilmington waterfront development efforts include the Port's development of Avalon Triangle Park and enhanced waterfront access from Banning's Landing Community Center. Cumulative impacts analysis will include information where available.

**Avalon Triangle Park:** In November 2004, the Port of Los Angeles broke ground on the new Avalon Triangle Park, the first in a series of projects identified in the community's conceptual plan for development of the Wilmington Waterfront. The temporary name of the new park, bounded by Broad Avenue, and Avalon and Harry Bridges Boulevards, was taken from the parcel's triangular shape. The park will include a large, green area with plants and trees lining the perimeter. Additional elements include a central lawn area, jogging pathway, picnic benches and welcoming gateway plaza at the corner entrance.

**Waterfront Plaza:** The look and function of Banning's Landing Community Center will also be enhanced as part of the Wilmington Waterfront Plan. A new Waterfront Plaza adjacent to the Center will become the focus for new retail, community facilities and maritime-related functions.

## Goods Movement

The Port of Los Angeles is a key player in California's goods movement initiatives, which highlight transportation improvement projects. The following is a list of other Port Projects.



**Port of Los Angeles Transportation Master Plan:** The Port of Los Angeles is currently developing a Port-wide transportation master plan for roadways in and around its facilities. Present and future traffic improvement needs are being determined, based on existing and projected traffic volumes. The results will be a Transportation Master Plan providing ideas on what to expect and how to prepare for the future volumes. Some of the transportation improvements under consideration include: I-110/SR-47/Harbor Blvd. interchange improvements; Navy Way connector (grade separation) to westbound Seaside Ave.; south Wilmington grade separations; and additional traffic capacity analysis for the Vincent Thomas Bridge.

**Southern California International Gateway:** The Port of Los Angeles is developing a new near dock rail facility, which will be operated by Burlington Northern Santa Fe (BNSF). This facility will be used to handle Port related intermodal containers. The proposed site for this facility is Port of Los Angeles property north of Pacific Coast Highway, south of Sepulveda Boulevard and west of the SR103. Currently, port related containers moving between the BNSF railyard and the ports travel on the I-710 freeway. Once this facility is fully operational, it is expected that one million port-related trucks could be eliminated from the I-710 freeway per year. Estimated year of construction completion is 2009.

#### **Other Port of Los Angeles Projects**

*Cabrillo Way Marina, Phase II:* The proposed project consists of 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 in December of 2003. Construction for the project is on hold.

*POLA Charter School and Port Police Headquarters, San Pedro:* The proposed project consists of a proposal to lease property for the POLA Charter School and to construct/develop a Port Police Headquarters. EIR certified August of 2005. Construction is expected in 2007.

*SSA Outer Harbor Fruit Facility Relocation:* The proposed project consists of a proposal to relocate the existing fruit import facility at 22<sup>nd</sup> and Miner to Berth 153. NOP for the EIR for this project is anticipated to be released in 2007.

*Crescent Warehouse Company Relocation:* The proposed project consists of relocating the operations of Crescent Warehouse Company from Port Warehouses 1, 6, 9, and 10 to an area of southeast Wilmington along Henry Ford and East I Street (tentative). NOP for the EIR for this project is expected to be released in 2007.

*Pier 400 Pacific Energy Systems:* The proposed project consists of a proposal to construct a Crude Oil Receiving Facility in Pier 400 with tanks on Terminal

Island, as well as pipelines between berth, tanks and pipeline system. NOI/NOP released June 2004. Draft EIR/EIS was released fall 2006.

*Ultramar Lease Renewal Project:* The proposed project consists of a proposal to renew the lease between the POLA and Ultramar Inc., for continued operation of the marine terminal facilities at Berths 163-164, as well as associated tank farms and pipelines. NOP released in April 2004. Draft EIR released fall 2006.

*Southern California International Gateway Project:* Establish a new intermodal rail yard at the POLA. NOP/NOI released September 2005. The project EIR/EIS is currently being prepared.

#### **5.2.14 PORT OF LONG BEACH (# 23)**

The projects currently being developed in the Port of Long Beach are summarized in this section.

##### **Terminal Development**

*Middle Harbor Terminal Redevelopment:* The proposed project consists of expansion of an existing marine container terminal. The Piers D, E, and F Development project will be located in the Middle Harbor area of the Port of Long Beach. The project will involve consolidation of two existing container terminals into one 336-acre terminal. Construction will include approximately 53 acres of landfill, dredging, wharf construction; construction of an intermodal rail yard; and reconstruction of terminal operations buildings. NOP/NOI released December 20, 2005 and project EIR/EIS is under preparation.

*Pier A West Remediation Project:* The Pier A West Remediation Project includes clean up of contaminated soil and groundwater at a 123-acre oil field owned by the Port. The Port is proposing to clean up the property through stabilization, treatment or removal of contaminated soil and groundwater. In addition, most of the elevation would be raised by about 16 feet and paved with asphalt. NOP/NOI released January 26, 2006. Project EIR/EIS is currently under preparation.

*Pier S Marine Terminal and Back Channel Improvements:* The proposed project includes constructing a 160-acre marine terminal on Pier S. Dredge and fill activities would involve dike realignment, berth deepening, wharf construction and widening of the Cerritos Channel. Construction of the wharf would include excavation of the existing shoreline to straighten the shoreline and widening of the channel would accommodate the passage of modern container vessels through the channel. A NOP for the Draft EIR was released for public comment on January 19, 2007. The scoping period for this project ended March 14, 2007.

*Pier J South Terminal:* The proposed project consists of development of a 385-acre marine terminal. Dredge and fill activities required to consolidate two

existing terminals. The Draft EIR/EIS for this project is anticipated to be completed early 2007.

*Pier T Long Beach LNG Terminal:* The proposed project consists of construction of a 25-acre LNG import terminal facility including pipeline and wharf construction on a portion of Pier T on Terminal Island. The Final EIR has not yet been completed.

*Gerald Desmond Bridge Replacement Project:* The proposed project consists of replacement of the existing Gerald Desmond highway bridge over the Port of Long Beach Back Channel. The EIR is currently being prepared.

### **5.2.15 SAN PEDRO BAY PORTS CLEAN AIR ACTION PLAN (# 24)**

The ports of Long Beach and Los Angeles have adopted the San Pedro Bay Ports Clean Air Action Plan, a plan with a goal of reducing the health risks posed by air pollution from port-related ships, trains, trucks, terminal equipment and harbor craft. The Final 2006 Clean Air Action Plan documents (Overview, Technical Report, and Comments Compendium) have been updated based upon input received during the comment period. The Final Plan can be found on the Port of Long Beach website ([www.polb.com](http://www.polb.com)). The San Pedro Bay Ports Clean Air Action Plan was created with the cooperation and participation of the SCAQMD, California Air Resources Board (CARB) and U.S. Environmental Protection Agency (U.S. EPA).

The Plan proposes hundreds of millions of dollars in investments by the ports, the local air district, the state, and port-related industry to cut PM pollution from all port-related sources by at least 47 percent within the next five years. Measures to be implemented under the plan also will reduce smog forming NO<sub>x</sub> emissions by more than 45 percent, and will also result in reductions of SO<sub>x</sub> emissions by at least 52 percent.

Under the Plan, the ports propose to eliminate “dirty” diesel trucks from San Pedro Bay cargo terminals within five years by helping to finance a new generation of clean or retrofitted vehicles.

The Plan also calls for all major container cargo and cruise ship terminals at the ports to be equipped with shore-side electricity within five to ten years so that vessels at berth can shut down their diesel-powered auxiliary engines. To reduce emissions of air pollutants, ships would also be required to reduce their speeds when entering or leaving the harbor region, use low-sulfur fuels, and employ other emission-reduction measures and technologies.

The Clean Air Action Plan accelerates the efforts of a CARB pollution reduction plan by requiring faster replacement of existing cargo-handling equipment with new equipment that will meet the toughest U.S. EPA emissions standards. Under the Clean Air Action Plan, diesel PM from all port-related sources would be reduced by a total of 1,200 tons a year, NO<sub>x</sub> would be reduced by 12,000 tons a year, and SO<sub>x</sub> by 8,900 tons a year.

## 5.2.16 OTHER CONOCOPHILLIPS PROPOSED PROJECTS

Other projects unrelated to the proposed projects may occur at either the Carson or Wilmington Plants associated with the on-going refinery operations. Those projects are summarized below.

### **Wilmington Plant (#25)**

The following project is anticipated to occur at the Wilmington Plant.

- ConocoPhillips is expected to upgrade the existing emission control system on venting from molten sulfur storage vaults in Sulfur Recovery Unit 138. The Sulfur Recovery Unit consists of two redundant plants: one is normally operating; and one is normally in stand-by mode, or undergoing maintenance. This modification would interconnect the two existing vent control systems for the two sulfur storage vaults to enable the control system on the idle sulfur plant to back-up the vent control system on the operating plant.

### **Carson Plant (#26)**

The following projects are anticipated to occur at the Carson Plant and construction activities associated with these other project could overlap with the proposed projects.

- A vapor recovery project required to comply with SCAQMD Rule 1118 – Control of Emissions from Refinery Flares. This modification includes installing facilities to recover vent gas from the flare headers for use in the refinery fuel gas system using two liquid ring type compressors. One compressor is sized to handle loads during routine operations, with the second compressor on stand-by to handle peak releases to the flare. In addition, the continuous purge and pilot gas supplied to the flare stacks will be changed from refinery fuel gas to natural gas. SCAQMD permit applications have been filed for the modifications to the vapor recovery system.
- The ConocoPhillips Carson Plant operates an existing Delayed Coking Unit. ConocoPhillips is proposing to make various vessel, piping and heat exchanger modifications to improve liquid product yield, and slightly reduce solid coke production, from the coking process. The modification will include the addition of a small accumulator vessel in the gas processing section. Maximum throughput capacity of the Coker Unit will not be increased.
- ConocoPhillips expects to replace the existing Secondary Column overhead accumulator at the Crude Unit with a slightly larger one to improve water separation. Maximum throughput capacity of the Crude Unit will not be increased. There could be a slight increase in fugitive VOC emissions.

- ConocoPhillips operators expect to install a new external floating roof storage tank to replace two existing tanks that store hydrotreated gas oil. The tank will be approximately 220 feet in diameter by 48 feet tall, with an approximate capacity of 25,000 barrels.
- ConocoPhillips operators are proposing to replace two existing air flotation units (AFU) that recover oil from refinery wastewater prior to discharge to the Los Angeles County sewer system. The existing AFU's are at the end of their useful life and utilize an older floatation technology. Instead of refurbishing the existing AFU's, they will be replaced with ones of similar design capacity, but using current air floatation technology.

ConocoPhillips at one time considered proposing an SCR Unit in years 2009/2010 for a hydrogen plant heater (HP-38) to reduce NOx emissions to help meet the declining NOx RECLAIM annual allocations. This project is considered to be speculative at this time as this SCR unit has not been funded and may not be required to comply with Regulation XX – RECLAIM.

The NOP/IS listed projects that ConocoPhillips was proposing to pursue and whose cumulative impacts would be evaluated. One project was that ConocoPhillips was proposing to modify an existing amine regeneration system at the Refinery. That project has been cancelled and is no longer a viable project. ConocoPhillips was also considering converting an existing rail car unloading facility for crude oil into a loading facility. Crude oil imported through the Port of Los Angeles would be delivered to the Carson Plant by pipeline and loaded into rail cars for shipment to ConocoPhillips' Santa Maria Refinery. The status of this project is uncertain, the details of the modification are not known, therefore, any impacts are considered speculative and will not be evaluated further in this EIR. However, an appropriate CEQA analysis would be required if this project is pursued in the future.

## **5.3 AESTHETICS**

### **5.3.1 CONSTRUCTION/OPERATIONAL IMPACTS**

A portion of the proposed project at the ConocoPhillips Carson plant includes construction of a WGS. The new WGS will emit flue gas from a stack approximately 200 feet above grade that is saturated with water, forming a visible plume. The stack and subsequent plume have the potential to generate aesthetic impacts at the site. The WGS will be located within the existing refinery facility and the equipment will blend with the currently existing equipment onsite. The aesthetic impacts of the proposed projects were considered less than significant because they would occur within an industrial area and be surrounded by existing industrial development. Further, the other projects at the ConocoPhillips Los Angeles Refinery will occur within the confines of the existing refinery and consist of structures that will either be not noticeable to the surrounding community (e.g., new compressors associated with the Rule 1118 project) or would

essentially blend in with the existing industrial environment (e.g., removal and construction of new Tank 2625). The aesthetic impacts of the ConocoPhillips proposed projects are less than significant and, thus, not cumulatively considerable.

Detailed aesthetic impacts for other cumulative projects are generally not available. A detailed aesthetic impact analysis was prepared for the development of the Berths 97-109 in the Port of Los Angeles which concluded that the project would result in significant adverse aesthetic impacts due to the installation of large cranes (up to 360 feet high) to remove cargo. Implementation of the various other cumulative projects and regional growth in general could result in direct and indirect visual impacts by serving urban development that could significantly change the visual character of some areas adjacent to the region's existing urban limits, especially where new development would occur on visually open spaces. The extensive development proposed in the ports that include new terminals, additional land, new transportation corridors and new bridges could impact views throughout the harbor area. Other refinery and industrial projects (e.g., modifications to the BP Refinery, 1105.1 compliance projects, Rule 1118 Compliance projects, the Kinder Morgan Terminal expansion and the Chemoil Terminals development consist of additional industrial development within the confines of industrial areas, so that the general aesthetics of the local area are not expected to be changed. In some cases, development is expected to result in redevelopment of older buildings removing blighted conditions (e.g., the port waterfront development projects). In addition, the other smaller projects may result in individually minor visual impacts locally. Local land use agencies are responsible for the approval of urban development. These agencies would usually apply development standards and guidelines to maintain compatibility with surrounding areas.

It should be noted that the Ports Clean Air Action Plan is expected to reduce diesel particulate matter emissions from port-related facilities by 47 percent within the next five years. Diesel particulate matter is responsible for the black soot emitted by some diesel engines (e.g., marine vessels). Thus, reducing diesel particulate matter would be expected to provide beneficial aesthetic impacts and enhance views.

### **5.3.2 MITIGATION MEASURES**

Mitigation measures for aesthetic impacts would be the responsibility of local land use agencies and would vary by agency and type of project. Mitigation measures for aesthetics have been imposed on certain port projects (Port of Los Angeles, 2006) and include landscaping requirements, use of low-profile cranes, appropriate paint colors on new equipment, removal of billboards, etc.

### 5.3.3 LEVEL OF SIGNIFICANCE AFTER MITIGATION

The aesthetic impacts of the ConocoPhillips proposed projects are less than significant and, thus, not cumulatively considerable. Per CEQA Guidelines §15064(h)(4), the mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulatively considerable.

## 5.4 AIR QUALITY

### 5.4.1 CONSTRUCTION IMPACTS

The construction emissions from the proposed ConocoPhillips projects are expected to exceed the SCAQMD significance threshold for NO<sub>x</sub>, so NO<sub>x</sub> emissions are considered to be significant for NO<sub>x</sub> emissions only (see Table 4-3). Therefore, NO<sub>x</sub> emissions are cumulatively considerable during the construction phase.

Currently, the South Coast Air Basin is non-attainment for ozone, CO, PM<sub>10</sub>, and PM<sub>2.5</sub>. Construction activities for some of the projects described in Section 5.2 have the potential to overlap with the proposed ConocoPhillips project and result in a short-term significant impact on air quality (see Table 5-2). Table 5-2 summarizes the available construction emissions data for the related projects, i.e., the emission estimates are available from other CEQA documents or sufficient project data are available to run the URBEMIS 2002 model to estimate construction emissions. The cumulative projects identified in Section 5.2 that are not included in Table 5-2 indicates that either the construction phase of the project is finished or sufficient project data are not available to estimate construction emissions. On a cumulative basis, construction emissions would exceed the thresholds established by the SCAQMD assuming they occur at the same time. Therefore, the cumulative air quality construction impacts are considered significant.

Mitigation measures to reduce emissions associated with construction activities are necessary primarily to control emissions from heavy construction equipment and worker travel. There will be construction emissions associated with other projects in the area including a number of port projects and the Alameda Corridor projects (e.g., modifications to SR-47 Port Access Expressway), but these emissions were not estimated and sufficient information does not exist to estimate these emissions. The construction schedules are also not available so it is not clear whether the construction emission will overlap with the ConocoPhillips proposed projects. Therefore, additional unquantifiable adverse air quality impacts may occur due to construction activities from these other projects if they are approved and construction begins in the same time frame as the proposed project.

TABLE 5-2

Cumulative Construction Air Quality Impacts  
(pounds per day)

No.	Project	Type of Project	Estimated Emissions				
			CO	VOC	NOx	SOx	PM10
	ConocoPhillips PM10 & NOx Reduction Project <sup>(1)</sup>	Refinery	122	27	125	<1	93
1	BP Safety, Compliance and Optimization Project <sup>(2)</sup>	Refinery	1,036	250	1,633	117	208
2	ExxonMobil Rule 1105.1 Compliance Project <sup>(4)</sup>	Refinery	238	44	380	33	50
3	Shell Rule 1105.1 Compliance Project <sup>(5)</sup>	Refinery	299	63	416	45	36
4	Ultramar Rule 1105.1 Compliance Project <sup>(6)</sup>	Refinery	62	13	82	<1	19
5	Ultramar Alkylolation Improvement Project <sup>(7)</sup>	Refinery	997	141	558	45	183
6	SCAQMD Rule 1118.1 Compliance Projects <sup>(8)</sup>	Refineries	18	7	43	3	5
7	Kinder Morgan <sup>(9)</sup>	Industrial	242	52	477	7	273
8	Chemoil Project <sup>(10)</sup>	Industrial	121	26	239	4	137
12	South Region High School No. 4 <sup>(3)</sup>	High School	234	36	187	0	9
13-16	Related Projects in the City of Carson <sup>(3)</sup>	Residential, Office Space, Church and Community Hall	480	120	447	0	20
17	USA Container Terminal Project <sup>(3)</sup>	Warehouse	642	148	604	<1	93
18	BP Integrated Supply and Trading Division Storage Tanks <sup>(11)</sup>	Industrial	92	19	130	7	19
19	2250 220 <sup>th</sup> Street <sup>(3)</sup>	Industrial	144	30	136	<1	7
20	651 E. Sepulveda <sup>(3)</sup>	Commercial/Retail	193	41	176	0	24
21	101-155 E. Lomita <sup>(3)</sup>	Retail/Commercial	139	18	134	0	20
22	Port of Los Angeles <sup>(11)</sup>	Terminal	292	73	1,968	1,228	351
25	Wilmington Plant <sup>(12)</sup>	Refinery	21	5	33	<1	2
26	Carson Plant <sup>(12)</sup>	Refinery	456	113	483	1	40
<b>Total Emissions<sup>(13)</sup></b>			<b>5,828</b>	<b>1,226</b>	<b>8,251</b>	<b>1,495</b>	<b>1,589</b>
<b>SCAQMD Thresholds</b>			<b>550</b>	<b>75</b>	<b>100</b>	<b>150</b>	<b>150</b>
<b>Significant</b>			<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>

(1) See Table 4-3; (2) SCAQMD, 2006c; (3) Emission estimates were estimated using the URBEMIS 2002 model; (4) SCAQMD, 2007a; (5) SCAQMD, 2006b; (6) SCAQMD, 2007b; (7) SCAQMD, 2004a; (8) SCAQMD, 2005(c); (9) City of Carson, 2005; (10) Assumes construction emissions are about 50 percent of the Kinder Morgan Terminal Expansion Project, because of the similar but smaller nature of the Chem Oil project; (11) Port of Los Angeles, 2006; (12) See Appendix C; and (13) PM2.5 emissions from these other projects are not available.



## 5.4.2 OPERATIONAL EMISSION IMPACTS

The emissions associated with the proposed ConocoPhillips project modifications, are shown in Chapter 4, Table 4-5. The operation of the ConocoPhillips Project will not exceed the SCAQMD thresholds, so the operational emissions are not expected to be cumulatively considerable. In fact, the ConocoPhillips proposed projects are expected to result in large emission reductions and beneficial air quality impacts associated with project operation (see Table 4-5).

During operation, some of the other cumulative projects are expected to reduce overall air pollutant emissions, specifically the SCAQMD Rule 1105.1 and 1118 compliance projects. In addition, implementation of the Ports Clean Air Action Plan is expected to result in large emission reductions. However, there are emission increases for certain air pollutants for some projects (see Table 5-3). Table 5-3 summarizes the available emissions data for the related projects, i.e., the emission estimates are available from other CEQA documents or sufficient project data are available to run the URBEMIS 2002 model to estimate operational emissions. The cumulative projects identified in Section 5.2 that are not included in Table 5-3 indicates that either the operational phase of the project is not expected to result in increased emissions or sufficient project data are not available to estimate operational emissions.

Air quality impacts associated with cumulative projects are expected to be less than the SCAQMD mass daily emissions thresholds for SO<sub>x</sub> and PM<sub>10</sub>. On a cumulative basis, the emissions of CO, VOCs, and NO<sub>x</sub> are expected to exceed the SCAQMD mass daily emission thresholds (see Table 5-3). However, per CEQA Guidelines §15064(h)(4), the mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulatively considerable. There will be emissions associated with other projects in the area including the Chemoil Project, BP IST storage tank project, and Alameda Corridor projects (e.g., modifications to SR-47 Port Access Expressway), and other port-related projects but these emissions were not estimated and sufficient information does not exist to estimate these emissions. The construction of new storage tanks will be required to comply with SCAQMD Rule 1178 – Further Reductions of VOC Emissions from Storage Tanks at Petroleum Facilities as well as BACT, which would minimize VOC emissions to the extent feasible, so that emission increases from new storage tanks are expected to be minor.

The ACTA Corridor and port-related transportation improvement projects seek to reduce port-related transportation emissions by improving transportation efficiency, reducing congestion, and the related air emissions. Therefore, additional air quality benefits may occur due to the transportation related projects.

TABLE 5-3

Cumulative Operational Air Quality Impacts (pounds per day)

No.	Project	Type of Project	Estimated Emissions				
			CO	VOC	NOx	SOx	PM10
	Proposed ConocoPhillips PM10 and NOx Reduction Project <sup>(1)</sup>	Refinery	1	<1	-446 to -911	-1,300 to -1,600	2
1	BP Safety, Compliance and Optimization Project <sup>(2)</sup>	Refinery	13	52	20	<1	15
2, 3, & 4	SCAQMD Rule 1105.1 Compliance Projects <sup>(3)</sup>	Refineries	5	6	1	<1	-5,099
5	Ultramar Alkylation Improvement Project <sup>(4)</sup>	Refinery	483	275	202	190	268
6	SCAQMD Rule 1118 <sup>(5)</sup> Compliance Projects	Refineries	-1,200	-220	-240	-2,020	-60
7	Kinder Morgan Carson Terminal Expansion <sup>(6)</sup>	Industrial	0	-97	0	0	0
12	South Region High School No. 4 <sup>(7)</sup>	High School	201	41	21	<1	23
13-16	Related Projects in the City of Carson <sup>(7)</sup>	Residential, Office Space, Church, Community Hall	346	50	36	<1	32
17	USA Container Terminal Project	Warehouse	249	27	25	<1	25
19	2250 220 <sup>th</sup> Street <sup>(7)</sup>	Industrial	48	6	5	<1	4
20	651 E. Sepulveda <sup>(7)</sup>	Commercial/Retail	443	42	44	<1	39
21	101-155 E. Lomita <sup>(7)</sup>	Retail/Commercial	283	27	28	<1	25
22	Port of Los Angeles <sup>(8)</sup>	Terminals	1,385	232	4,160	76	124
<b>Total Emissions<sup>(9)</sup></b>			2,257	442	3,391-3,856	-3,046 to -3,346	-4,602
<b>SCAQMD Thresholds</b>			550	75	100	150	150
<b>Significant</b>			<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	<b>No</b>	<b>No</b>

(1) See Table 4-5, only includes emission increases and NOx emission reductions; (2) SCAQMD, 2006c; (3) SCAQMD, 2003b; (4) SCAQMD, 2004a; (5) SCAQMD, 2005c; (6) City of Carson, 2005; (7) Emissions estimated using URBEMIS 2002 model and default assumptions; (8) Port of Los Angeles, 2006; (9) PM2.5 emissions for these other projects are not available.

5.4.3 TOXIC AIR CONTAMINANTS

The ConocoPhillips proposed project will result in a short-term increase in emissions related to construction activities. These emissions will cease following completion of construction. The main contaminant of concern associated with construction activities is diesel exhaust particulates that have been listed as a TAC by CARB. While carcinogenic and chronic non-carcinogenic health risk values have been established for diesel exhaust particulates, no acute diesel exhaust health risk values have been established to evaluate acute (i.e., short-term) health effects related to diesel particulates.

Since construction for the proposed project is considered to be short-term (i.e., lasts less than two years) and does not require substantial construction equipment, no health risk

assessment (HRA) is required to be prepared. Further, the proposed project is expected to result in long-term health benefits by reducing NO<sub>x</sub>, PM<sub>10</sub> and ammonia emissions from the refinery. Therefore, no significant adverse health effects are expected from the proposed project.

The TAC impacts associated with the operation of the proposed projects are limited to an increase in ammonia emissions associated with ammonia slip from the SCR. The proposed project impacts on health effects associated with exposure to toxic air contaminants (ammonia) are expected to be below the CEQA significance thresholds and, therefore, less than significant. Other cumulative projects are not expected to result in significant increases in ammonia emissions. Therefore, the proposed project impacts are not expected to contribute to cumulative impacts and are not considered to be cumulatively considerable.

The impacts from toxic air contaminants are localized impacts. A number of the proposed projects in the Carson area are expected to result in overall emission decreases, including decreases in toxic air contaminants, e.g. Rule 1105.1 compliance projects and Rule 1118 Compliance Projects. Other reductions in TACs are expected from the Port Clean Air Plan and transportation improvement project that reduce mobile source emissions. Most of the cumulative projects that may result in emission increases are located over one mile from the ConocoPhillips Refinery and toxic air contaminant emissions are not expected to overlap due to distance from the Refinery and dispersion from the sources which dilutes toxic emission impacts. In addition, the only TAC emissions from the ConocoPhillips proposed project is ammonia emissions.

### 5.4.4 MITIGATION MEASURES

During construction, the mitigation measures developed by the SCAQMD in the 2003 Final EA for Rule 1105.1 will be imposed upon the proposed project (see Section 4.3.3) and other projects where the SCAQMD is the lead agency and that occur at the same time. Mitigation measures should be imposed by all lead agencies for construction emissions from other projects (e.g., port-related development, transportation projects, and other development projects).

During operation, mitigation measures to minimize emissions associated with operation of the related projects include the use of BACT for all, new, emission sources and modifications to existing sources. The use of BACT would control regional and localized emissions. A BACT review will be completed during the SCAQMD permit approval process for all new/modified sources.

It should be noted that the ports are working on measures to minimize port-related emissions that could provide emission reductions or minimize future emissions. Examples of these measures include: (1) the use of electric container cranes; (2) the use of electric motors to drive conveyors and rail gantry cranes and loading/unloading equipment for trains, trucks, and ships; (3) the use of dock equipment powered by propane or natural gas; (4) most of the tugboats in the port plug into electrical power

while they wait for their next calls instead of idling their engines; (5) new clean diesel technologies are also being tested and installed on some tugboats and heavy work boats; (6) the use of ultra-low emission diesel engines are being tested to reduce NOx emissions from tugboats by 80 percent; (7) the development of a Clean Engines and Fuels Program to incorporate alternative fuel vehicles into fleets; and (8) investigating the feasibility of using electricity to replace marine engines while at port (PLAX/PLB, 2006).

Further, the ACTA Corridor and related transportation improvement projects are expected to reduce port-related transportation emissions by improving transportation efficiency, reducing congestion, and the related air emissions.

#### **5.4.5 LEVEL OF SIGNIFICANCE AFTER MITIGATION**

The cumulative adverse air quality impacts due to construction activities associated with the ConocoPhillips proposed projects are expected to exceed the SCAQMD significance threshold for NOx emissions, thus, are considered to be cumulatively considerable.

The cumulative air quality impacts associated with the ConocoPhillips proposed projects due to operational activities are primarily beneficial (i.e., produce emission reductions) or are substantially less than the SCAQMD significance thresholds and, therefore, are not significant and not considered to be cumulatively considerable. As a result, operational project-specific air quality impacts do not contribute to significant adverse cumulative air quality impacts. Per CEQA Guidelines §15064(h)(4), the mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulatively considerable.

### **5.5 HYDROLOGY/WATER QUALITY**

#### **5.5.1 CONSTRUCTION/OPERATIONAL IMPACTS**

The proposed project is anticipated to increase wastewater discharge from the Wilmington Plant by about 100,800 gallons per day (about 70 gallons per minute) associated with the WGS and purge treatment unit. The increase in wastewater discharge represents about a four percent increase in wastewater discharge over current operating conditions. The on-site ConocoPhillips wastewater treatment equipment can handle the increase because it is within the range of wastewater typically handled by the Refinery (1,800 gallons per minute) and the maximum wastewater discharges (over 5,000 gallons per minute). None of the other cumulative projects at the ConocoPhillips Los Angeles Refinery are expected to require additional water or generate additional wastewater. The hydrology/water quality impacts of the ConocoPhillips proposed projects are less than significant and, thus, not cumulatively considerable.

The other cumulative refinery and industrial projects (e.g., Kinder Morgan and Chemoil Terminals) are largely compliance projects (e.g., 1105.1 compliance projects) or projects that do not require a substantial increase in water demand or wastewater discharge (e.g.,

the BP Safety, Compliance and Optimization Project is expected to generate an estimated increase in 50 gallons per day due to an increase in caustic wastewater generated by the Alkyl Merox Unit). Projects related to the ACTA projects and other port transportation projects are not expected to generate additional wastewater. Finally, the terminal development projects at the ports are not expected to require substantial increases in water demand or wastewater discharges. Therefore, the proposed project and the cumulative projects are not expected to produce significant adverse cumulative impacts to water demand.

### **5.5.2 MITIGATION MEASURES**

No significant adverse cumulative hydrology and water quality impacts have been identified so no mitigation measures are required.

### **5.5.3 LEVEL OF SIGNIFICANCE AFTER MITIGATION**

The hydrology/water quality impacts associated with the ConocoPhillips proposed projects are less than significant and, thus, not considered to be cumulatively considerable. Per CEQA Guidelines §15064(h)(4), the mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulatively considerable.

## **5.6 TRANSPORTATION/TRAFFIC**

### **5.6.1 CONSTRUCTION IMPACTS**

Project specific traffic impacts associated with the construction of the ConocoPhillips proposed project are expected to be less than significant. Therefore, the proposed project's contribution to cumulative impacts on traffic during the construction phase would not be considered cumulatively considerable.

There could be cumulative construction traffic impacts associated with other industrial construction projects in the area that do not avoid peak traffic hours. Construction of the ACTA projects would require improvements to State Route 47 which could result in disruption to the local traffic circulatory system, creating detours and affecting accessibility to businesses. However, construction activities would be short-term and construction-related traffic would cease following completion of construction activities.

### **5.6.2 OPERATIONAL IMPACTS**

The proposed projects are not expected to increase the number of permanent employees at the Refinery at either the Carson or Wilmington Plants. So no increase in worker traffic is expected. The proposed projects will result in a maximum increase in truck traffic of about one additional truck trip per day traveling to/from the Carson Plant and the Wilmington Plant (total project impact of two truck deliveries per day). Since these

truck trips would mainly consist of ammonia and sodium hydroxide deliveries, they would be spread throughout the workday with few deliveries occurring during the peak hour. Therefore, no significant impacts to traffic during operation of the proposed projects are expected at either the Wilmington or Carson Plants and, thus, the traffic impacts are not cumulatively considerable.

**5.6.2.1 Carson Plant**

Table 5-4 shows the projected LOS analysis and volume to capacity ratios due to general growth in the vicinity of the Carson Plant (see Appendix D for details). The cumulative traffic impacts were calculated assuming an ambient traffic growth rate of one percent per year from year 2005 to year 2025 and no changes in existing intersection geometrics.

**TABLE 5-4**

**ConocoPhillips Carson Plant Cumulative Traffic Impacts**

INTERSECTION	BASELINE <sup>(1)</sup>		IMPACTS <sup>(2)</sup>		
	PM LOS	Peak Hour V/C	PM LOS	Peak Hour V/C	Change in V/C
Alameda Street and I-405 NB ramps	A	0.560	B	0.652	0.092
Alameda St. and 223 <sup>rd</sup> Connector	A	0.510	A	0.593	0.083
ICTF Entry/I-405 Ramps and Wardlow/223 <sup>rd</sup> St.	A	0.493	A	0.573	0.080
Alameda Connector and 223 <sup>rd</sup> St.	C	0.731	D	0.854	0.123
Alameda St. and Sepulveda Connector	A	0.443	A	0.514	0.071
Alameda Connector and Sepulveda Blvd.	A	0.578	B	0.672	0.094
CP Entrance and Sepulveda Blvd.	A	0.345	A	0.398	0.053
Alameda St. and PCH Connector	A	0.232	A	0.265	0.033
Wilmington Ave. and Sepulveda Blvd.	A	0.552	B	0.643	0.091

Notes: V/C = Volume to capacity ratio (capacity utilization ratio)

LOS = Level of Service

(1) = See Table 3-6.

(2) = Due to projected growth in the vicinity

Cumulative impacts are not expected to result in a change in LOS at the following intersections:

- Alameda Street and I-405 NB ramps
- Alameda Street and 223<sup>rd</sup> Street Connector
- ICTF Entry/I-405 Ramps and Wardlow/223<sup>rd</sup> Street
- Alameda Street and Sepulveda Boulevard Connector
- Alameda Street Connector and Sepulveda Boulevard
- ConocoPhillips Entrance and Sepulveda Boulevard
- Alameda Street and Pacific Coast Highway Connector

- Wilmington Avenue and Sepulveda Boulevard

The change in LOS at the following intersection is considered to be significant adverse cumulative impacts since traffic flow would be adversely impacted:

- Alameda Connector and 223<sup>rd</sup> Street

However, per CEQA Guidelines §15064(h)(4), the mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project’s incremental effects are cumulatively considerable.

**5.6.2.2 Wilmington Plant**

Table 5-6 shows the projected LOS analysis and volume to capacity ratios due to general growth in the vicinity of the Wilmington Plant (see Appendix D for details). The cumulative traffic impacts were calculated assuming an ambient traffic growth rate of one percent per year from year 2005 to year 2025 and no changes in existing intersection geometrics.

**TABLE 5-5**

**ConocoPhillips Wilmington Plant Cumulative Traffic Impacts**

INTERSECTION	BASELINE <sup>(1)</sup>		IMPACTS <sup>(2)</sup>		
	PM LOS	Peak Hour V/C	PM LOS	Peak Hour V/C	Change in V/C
Figueroa St. and Anaheim St.	A	0.570	B	0.663	0.093
Figueroa Pl. and Anaheim St.	C	0.772	E	0.902	0.130
Figueroa St. and I St./I-110 on-ramp	A	0.600	B	0.699	0.099
Figueroa St. and G St./I-110 off-ramp	A	0.308	A	0.354	0.046
Figueroa Pl. and I St./I-110 off-ramp	C	0.781	E	0.912	0.131
Figueroa Pl. and I-110 on ramp/G St.	A	0.249	A	0.285	0.036
CP Gate 11 and Anaheim St.	A	0.443	A	0.514	0.071
Gaffey St. - Palos Verdes Dr. – Vermont - Anaheim St.	D	0.900	F	1.04	0.140

Notes: V/C = Volume to capacity ratio (capacity utilization ratio)

LOS = Level of Service

(1) = See Table 3-7.

(2) = Due to projected growth in the vicinity

Cumulative impacts are not expected to result in a change in LOS at the following intersections:

- Figueroa Street and Anaheim Street
- Figueroa Street and I Street/I-110 on-ramp

- Figueroa Street and G Street/I-110 off-ramp
- Figueroa Place and I-110 on ramp/G Street
- CP Gate 11 and Anaheim Street

The change in LOS at the following intersection is considered to be significant adverse cumulative impacts since traffic flow would be adversely impacted:

- Figueroa Place and Anaheim Street
- Figueroa Place and I Street/I-110 off-ramp
- Gaffey Street - Palos Verdes Drive – Vermont Avenue - Anaheim Street

However, per CEQA Guidelines §15064(h)(4), the mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulatively considerable.

### **5.6.3 MITIGATION MEASURES**

The ConocoPhillips Project construction traffic impacts are expected to be less than significant. The increase in traffic associated with operation of the proposed project is limited to one truck trip per day to the Carson and Wilmington Plants and, therefore, is less than significant.

On a cumulative basis, general growth in the area may result in significant traffic impacts at the intersections Alameda Connector and 223<sup>rd</sup> Street, Figueroa Place and Anaheim Street, Figueroa Place and I Street/I-110 off-ramp, and the intersection of Gaffey Street - Palos Verdes Drive – Vermont Avenue - Anaheim Street. The increase in traffic is unrelated to the proposed project but is related to general population growth in the area so mitigation measures will need to be developed as new projects that generate traffic are proposed and as part of the City of Carson's and the City of Los Angeles' General Plan process.

### **5.6.4 LEVEL OF SIGNIFICANCE AFTER MITIGATION**

The proposed project is not expected to result in significant traffic during either the construction or operational phases. As a result, project-specific traffic impacts do not contribute to significant adverse cumulative traffic impacts and are not cumulatively considerable. Per CEQA Guidelines §15064(h)(4), the mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulatively considerable.