APPENDIX I-A

NOTICE OF PREPARATION/INITIAL STUDY

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South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4182
(909) 396-2000 • www.aqmd.gov

SUBJECT: **NOTICE OF PREPARATION OF DRAFT ENVIRONMENTAL IMPACT REPORT**

PROJECT TITLE: **SHELL CARSON FACILITY ETHANOL (E10) PROJECT**

In accordance with the California Environmental Quality Act (CEQA), the South Coast Air Quality Management District (SCAQMD), is the Lead Agency and will prepare a Draft Environmental Impact Report (EIR) for the project identified above. The purpose of this Notice of Preparation (NOP) of a Draft EIR is to solicit comments on the environmental analysis to be contained in the EIR.

In conjunction with the development of the proposed project, it is necessary to address the potential adverse effects of the proposed project on the environment. Based on the initial review of the proposed project, it has been concluded that an EIR should be prepared. The NOP serves two purposes: to solicit information on the scope of the environmental analysis for the proposed project and notify the public that the SCAQMD will prepare a Draft EIR to further assess potential adverse environmental impacts that may result from implementing the proposed project. The Draft EIR will further analyze environmental topic areas identified in the Initial Study that could be adversely affected by the proposed project.

This letter, NOP and the attached Initial Study are not SCAQMD applications or forms requiring a response from you. Their purpose is simply to provide information to you on the above project. If the proposed project has no bearing on you or your organization, no action on your part is necessary. The project's description, location, and potential environmental impacts are described in the NOP and the attached Initial Study.

The SCAQMD will hold a scoping meeting to discuss the proposed project and review the environmental issues to be discussed in the EIR on May 4, 2010 at the Carson Double Tree Hotel located at 2 Civic Plaza, Carson, California 90745 at 6:00 p.m.

Comments focusing on your area of expertise, your agency's area of jurisdiction, or issues relative to the environmental analysis should be addressed to Ms. Barbara Radlein (c/o CEQA) at the address shown above, sent by FAX to (909) 396-3324 or by e-mail to bradlein@aqmd.gov. Comments must be received no later than 5:00 p.m. on May 18, 2010. Please include the name and phone number of the contact person for your organization.

Project Applicant: Shell Oil Products US Carson Distribution Facility

Date: April 15, 2010 **Signature:** Steve Smith

Steve Smith, Ph.D.
Program Supervisor
Planning, Rules, and Area Sources
(909) 396-3054

Reference: California Code of Regulations, Title 14, Sections 15082(a), 15103, and 15375

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

21865 Copley Drive, Diamond Bar, California 91765-4182

NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT

Project Title:
Shell Carson Facility Ethanol (E10) Project

Project Location:
The proposed project will be located at the Shell Carson Distribution Facility, 20945 S. Wilmington Avenue, Carson, California 90810.

Description of Nature, Purpose, and Beneficiaries of Project:
The Shell Carson Facility Ethanol (E10) Project will occur at the Shell Oil Products US (Shell) Carson Distribution Facility. The purpose of the proposed project is to increase the facility's capacity to deliver denatured ethanol by tanker trucks to the southern California market. The increase in denatured ethanol delivery capacity is in response to an increase in the amount of ethanol required to be blended into gasoline to comply with the 2007 amendments to the California Air Resources Board (CARB) Phase 3 Reformulated Gasoline (RFG) requirements. The proposed project includes the following changes to the Carson Distribution Facility: 1) increase the ethanol throughput at an existing two-lane tanker truck loading rack; 2) convert up to four existing storage tanks from gasoline to ethanol service; 3) install one new ethanol tanker truck loading lane and associated ethanol loading rack; 4) expand the existing ethanol loading rack operations building; and 5) install one new gasoline storage tank to replace gasoline storage capacity that will be transferred to ethanol service.

Lead Agency:	**Division:**
South Coast Air Quality Management District	Planning, Rule Development and Area Sources

Initial Study and all supporting documentation are available at:	**or by calling:**	**or by accessing the SCAQMD's website at**
SCAQMD Headquarters 21865 Copley Drive Diamond Bar, CA 91765	(909) 396-2039	http://aqmd.gov/ceqa/nonaqmd.html

The Public Notice of Preparation is provided through the following:

☑ Los Angeles Times (April 16, 2010)	☑ Daily Breeze (April 16, 2010)	☑ SCAQMD Website
☑ SCAQMD Public Information Center	☑ Interested parties	☑ SCAQMD Mailing list

NOP/IS 30-day Review Period:
April 16, 2010 through May 18, 2010

Scheduled Public Meeting Date:
A CEQA scoping meeting will be held on May 4, 2010 at the Carson Double Tree Hotel located at 2 Civic Plaza, Carson, California 90745 at 6:00 pm for the proposed project.

Send CEQA Comments to:	**Phone:**	**E-Mail:**	**Fax:**
Ms. Barbara Radlein	(909) 396-2716	bradlein@aqmd.gov	(909) 396-3324

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Initial Study for:
Shell Carson Facility Ethanol (E10) Project

SCH No. To Be Determined

April 2010

Executive Officer
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Submitted to:
SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Prepared by: AECOM

Reviewed by: Barbara Radlein, Air Quality Specialist
Steve Smith, Ph.D., Program Supervisor, CEQA
Jeri Voge, District Counsel
Thomas Liebel, Senior Air Quality Engineer
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EXECUTIVE OFFICER
BARRY WALLERSTEIN, D.Env

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INTRODUCTION

Shell Oil Products US (Shell) is proposing a project at its Carson Distribution Facility (Carson Facility) to increase the Carson Facility's capacity to deliver denatured ethanol (a blend of ethanol and approximately two to five percent gasoline) by tanker trucks to the southern California market. The increase in denatured ethanol delivery capacity is in response to an increase in the amount of ethanol required to be blended into gasoline to comply with the 2007 amendments to the California Air Resources Board (CARB) Phase 3 Reformulated Gasoline (RFG) requirements. The Shell Carson Facility Ethanol (E10) Project (proposed project) includes the following changes to the Carson Facility: 1) increase the ethanol throughput at an existing two-lane tanker truck loading rack; 2) convert up to four existing storage tanks from gasoline to ethanol service; 3) install one new ethanol tanker truck loading lane and associated ethanol loading rack; 4) expand the existing ethanol loading rack operations building; and 5) install one new gasoline storage tank to replace gasoline storage capacity transferred to ethanol service.

Federal and California regulations have required gasoline to have a minimum oxygen content to reduce tailpipe emissions from motor vehicles since 1992. Prior to 1999, these regulations did not specify the type of oxygenate to be added to gasoline to meet the oxygen content requirements. Methyl tertiary butyl ether (MTBE) and ethanol were used for this purpose most frequently. In response to a study conducted by the University of California about the health and environmental risks and benefits of MTBE in gasoline compared to other oxygenates, California Governor Davis issued an Executive Order in March 1999 that directed California to phase-out the use of MTBE in gasoline by December 31, 2002. On December 9, 1999, CARB adopted new gasoline specifications, known as the California Reformulated Gasoline Phase 3 (RFG Phase 3) requirements, which included a prohibition on the use of MTBE in gasoline by December 31, 2002. In order to continue to meet oxygen content requirements without using MTBE, the petroleum industry in California instead is required to blend 5.7 percent denatured ethanol into gasoline base stock for sale at retail outlets.

Replacing MTBE with ethanol as an oxygenate in gasoline required changes in the way oxygenate blending occurred. MTBE was predominately added to gasoline at refineries before the gasoline was transported to gasoline distribution facilities by pipelines, where the gasoline was loaded into tanker trucks for distribution to retail outlets. However, unlike gasoline containing MTBE, gasoline containing ethanol has a high affinity for water. As a result, transporting gasoline containing ethanol by pipeline could lead to unacceptable levels of moisture in the gasoline. To avoid this, ethanol is blended with gasoline base stock at the gasoline distribution facilities, instead of at the refineries. This change required transporting ethanol to the gasoline distribution facilities, primarily by tanker truck.

At the time the RFG Phase 3 requirements were adopted, there was no infrastructure in place in southern California to support the volumes of ethanol required by gasoline distribution facilities to meet the new oxygen/ethanol gasoline specification. To help meet the increase in demand for ethanol, Shell constructed ethanol storage and transfer facilities at the Carson Facility in 2003. The Carson Facility's capabilities for receipt, storage and delivery by tanker truck enable Shell and several third party gasoline customers to support market demand for ethanol. The Carson Facility is permitted to load up to 30,000 barrels[1] of ethanol into tanker

[1] One barrel is 42 gallons.

trucks per day, which represents a substantial portion of the ethanol blended into gasoline in southern California.

As part of the RFG Phase 3 regulatory process, CARB directed staff to investigate the potential emissions impact of adding ethanol to gasoline, specifically related to the increase in hydrocarbon emissions through permeation. Permeation refers to the diffusive process whereby fuel molecules migrate through the materials of a vehicle's fuel system. Eventually, the fuel molecules are emitted into the air where they contribute to evaporative emissions from the vehicle. Recently completed studies on on-road motor vehicles now show that ethanol increases the evaporation emissions of gasoline through permeation over that of a comparable fuel without ethanol or with MTBE. Based on study results, CARB staff calculated the statewide increase in evaporative emissions from on-road motor vehicles due to the presence of ethanol in gasoline to be about 18.4 tons per day of hydrocarbons in 2010. This represents a seven percent increase in evaporative emissions and a four percent increase in overall hydrocarbon (HC) emissions. (CARB, 2007).

On June 14, 2007, CARB adopted amendments to the RFG Phase 3 specifications (herein referred to as the 2007 RFG Phase 3 amendments), and these amendments became effective on August 29, 2008. The 2007 RFG Phase 3 amendments address the permeation issue and emissions increases due to ethanol.

The 2007 RFG Phase 3 amendments include (CARB, 2008a):

- Amending the California Predictive Model to ensure that emissions associated with permeation caused by ethanol use are mitigated and to incorporate new data;

- Decreasing the gasoline sulfur cap limit from 30 parts per million by weight (ppmw) to 20 ppmw (21 ppmw for California reformulated gasoline blendstock for oxygenate blending [CARBOB[2]]) to improve enforceability and facilitate new motor vehicle emissions control technology;

- Allowing emissions averaging beginning December 31, 2009, for low-level sulfur blends to provide additional flexibility for producers and importers that produce gasoline in order to compensate for unexpected deviations in the refinery process that could lead to individual batch inconsistencies;

- Applying the 7.00 pounds per square inch (psi) Reid vapor pressure (RVP) limit to oxygenated gasoline when the evaporative emissions portion of the Predictive Model is used to certify ethanol blends to reflect that virtually all gasoline will be oxygenated and commingling emissions are not a problem for these fuels;

- Retaining the 6.90 RVP limit for non-oxygenated gasoline to ensure that no increase in hydrocarbon emissions from commingling with oxygenated gasoline will occur;

[2] CARBOB is the blendstock with which ethanol is blended to produce oxygenated gasoline. The sulfur cap limit is higher for CARBOB than for gasoline, because adding denatured ethanol to CARBOB reduces the sulfur content of the resulting oxygenated gasoline.

- Allowing flexibility in setting oxygen content in the Predictive Model to account for variability in test methods;

- Increasing the maximum allowable amount of denaturant in ethanol to be consistent with the current standards of the American Society of Testing and Materials (ASTM);

- Updating the test method for oxygenate content of gasoline;

- Requiring producers to use the revised Predictive Model starting December 31, 2009;

- Adding an option to use an alternative emissions reduction plan (AERP) beginning December 31, 2009 through December 31, 2011, instead of producing RFG compliant with the revised Predictive Model, to help mitigate emissions associated with permeation; and

- Requiring the production of RFG compliant with the revised Predictive Model after December 31, 2011.

According to CARB staff, the most cost-effective way for fuel producers to meet the requirements of the 2007 RFG Phase 3 amendments will include increasing the percentage of ethanol blended into gasoline to 10 percent (E10), which will reduce exhaust hydrocarbon emissions sufficiently to offset the increase in emissions through permeation (CARB, 2008b). Thus, complying with the 2007 RFG Phase 3 amendments essentially required fuel producers to increase the percentage of ethanol blended into gasoline from the current required level of 5.7 percent to 10 percent by December 31, 2009, unless they choose to implement an AERP, in which case they will be required to increase the ethanol level to 10 percent no later than January 1, 2012.

Implementing the proposed project will increase the Carson Facility's ethanol tanker-truck delivery capacity and will allow the Carson Facility to continue to support the market's demand for denatured ethanol when demand increases in response to the 2007 RFG Phase 3 amendments.

AGENCY AUTHORITY

The California Environmental Quality Act (CEQA), Public Resources Code Section 21000 et seq., requires that the environmental impacts of proposed projects be evaluated and that feasible methods to reduce, avoid or eliminate significant adverse impacts of these projects be identified and implemented. The proposed modifications constitute a project as defined by CEQA. To fulfill the purpose and intent of CEQA, the South Coast Air Quality Management District (SCAQMD) is the "lead agency" for this project and has prepared a Notice of Preparation of an Environmental Impact Report (EIR) and Initial Study (NOP/IS) to address the potentially significant adverse environmental impacts associated with the proposed project at the Shell Carson Facility.

The lead agency is the public agency that has the principal responsibility for carrying out or approving a project which may have a significant effect upon the environment (Pubic Resources Code §21067). In the case of the proposed project, either the City of Carson or the SCAQMD could claim to be lead agency for the proposed project. Although the SCAQMD

has the primary responsibility for supervising or approving the entire project as a whole and is the most appropriate public agency to act as lead agency, CEQA Guidelines §15051(d) states that where there are two or more public agencies with a substantial claim to be lead agency, the public agencies may, by agreement, designate an agency as lead agency. On May 20, 2008, the City of Carson agreed to designate the SCAQMD as lead agency for the proposed project.[3] The proposed project requires discretionary approval from the SCAQMD for modifications to existing stationary source equipment and installation of new stationary source equipment. The City of Carson will act as the responsible agency for any permits and approvals required by the city.

PROJECT LOCATION

The proposed project is located at the Shell Carson Distribution Facility, located at 20945 South Wilmington Avenue, in the City of Carson. Figures 1-1 and 1-2 show the regional and site locations of the Carson Facility, respectively. The Carson Facility is approximately 446 acres in size and is bounded to the north by Del Amo Boulevard, to the east by South Wilmington Avenue and Martin Street, to the south by 213th Street, and to the west by Chico Street, Annalee Avenue, and Tillman Avenue. All proposed modifications would occur within the confines of the existing Carson Facility.

The facility is zoned Manufacturing, Heavy (MH), and the City of Carson General Plan has the site divided into three land use designations: Heavy Industrial (HI), Business Park (BP), and Light Industrial (LI). Surrounding land uses include light industrial and single-family residential to the north, light industrial to the west, single-family residential to the south, light industrial to the south east and light and heavy industrial to the east.

PROJECT DESCRIPTION

Shell is proposing a project at the Carson Facility to increase the Facility's capacity to deliver denatured ethanol in tanker trucks to gasoline distribution facilities. Currently, denatured ethanol is delivered by a pipeline dedicated to ethanol service into the Carson Facility from an off-site railcar offloading facility owned and operated by a third party (Kinder Morgan), stored in above-ground storage tanks and transferred into tanker trucks at an on-site two-lane truck loading rack for delivery to customers. Ethanol can also be delivered off-site by pipeline. The current SCAQMD permit for the two-lane truck loading rack allows ethanol throughput up to a maximum of 30,000 barrels per day (bbl/day). Shell is proposing to increase the permitted throughput for the existing two-lane truck loading rack to 35,000 bbl/day and to construct a new single-lane truck loading rack with a maximum throughput capacity of 17,500 bbl/day. Thus, the total ethanol tanker truck loading capacity would increase from 30,000 bbl/day to 52,500 bbl/day. This 75 percent increase corresponds to the 75 percent increase in the level of ethanol, from 5.7 percent to 10 percent, as required by the 2007 CARB Phase 3 RFG amendments.

The following sections provide additional detail describing the proposed project. Figure 1-3 provides the locations of the changes within the Carson Facility.

[3] Email communication from John Signo - Senior Planner, City of Carson Planning Division, to Michael Krause - Air Quality Specialist, SCAQMD; May 20, 2008.

Figure 1-1. Regional Location Map

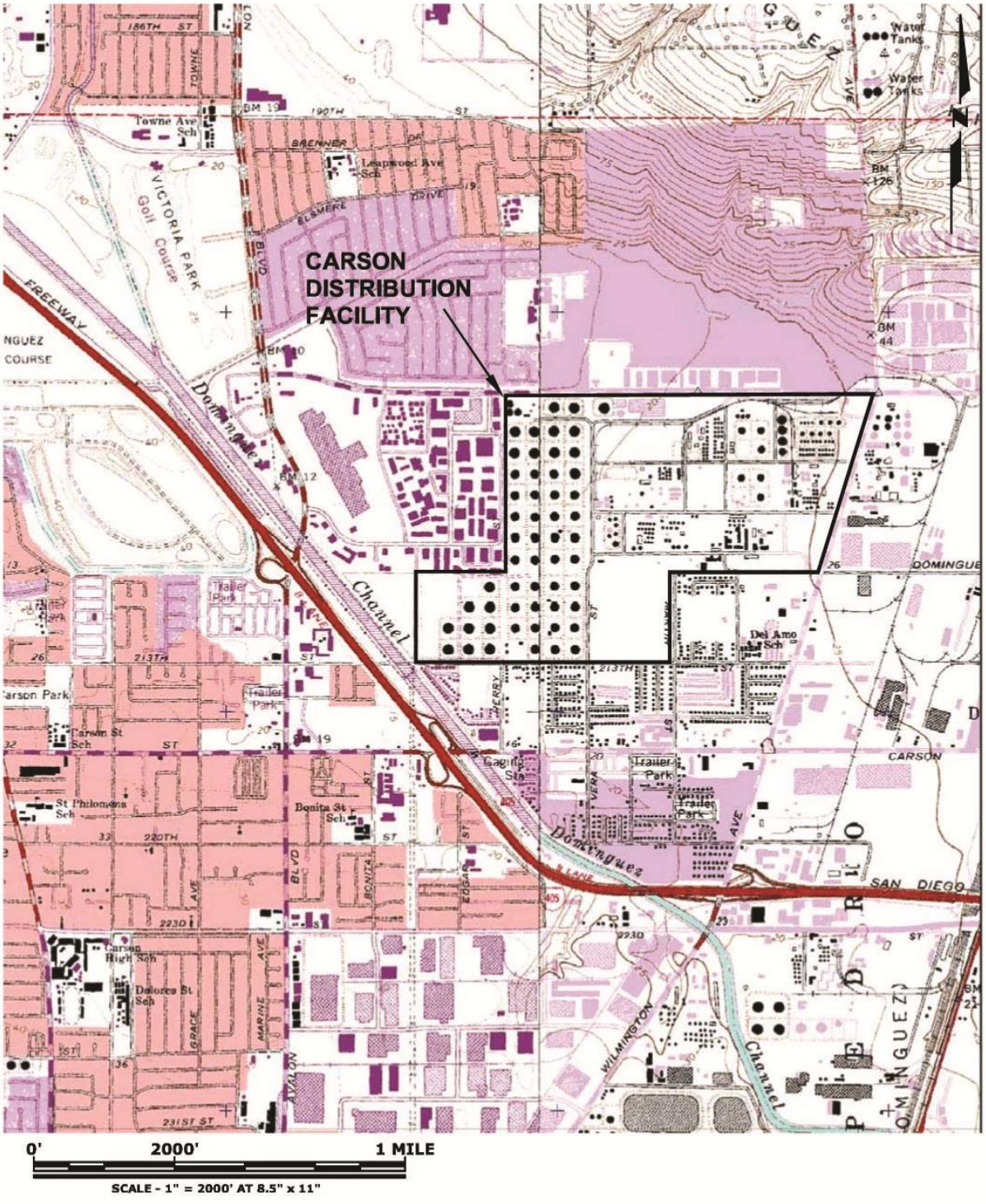

Figure 1-2. Site Location Map, Shell Carson Distribution Facility

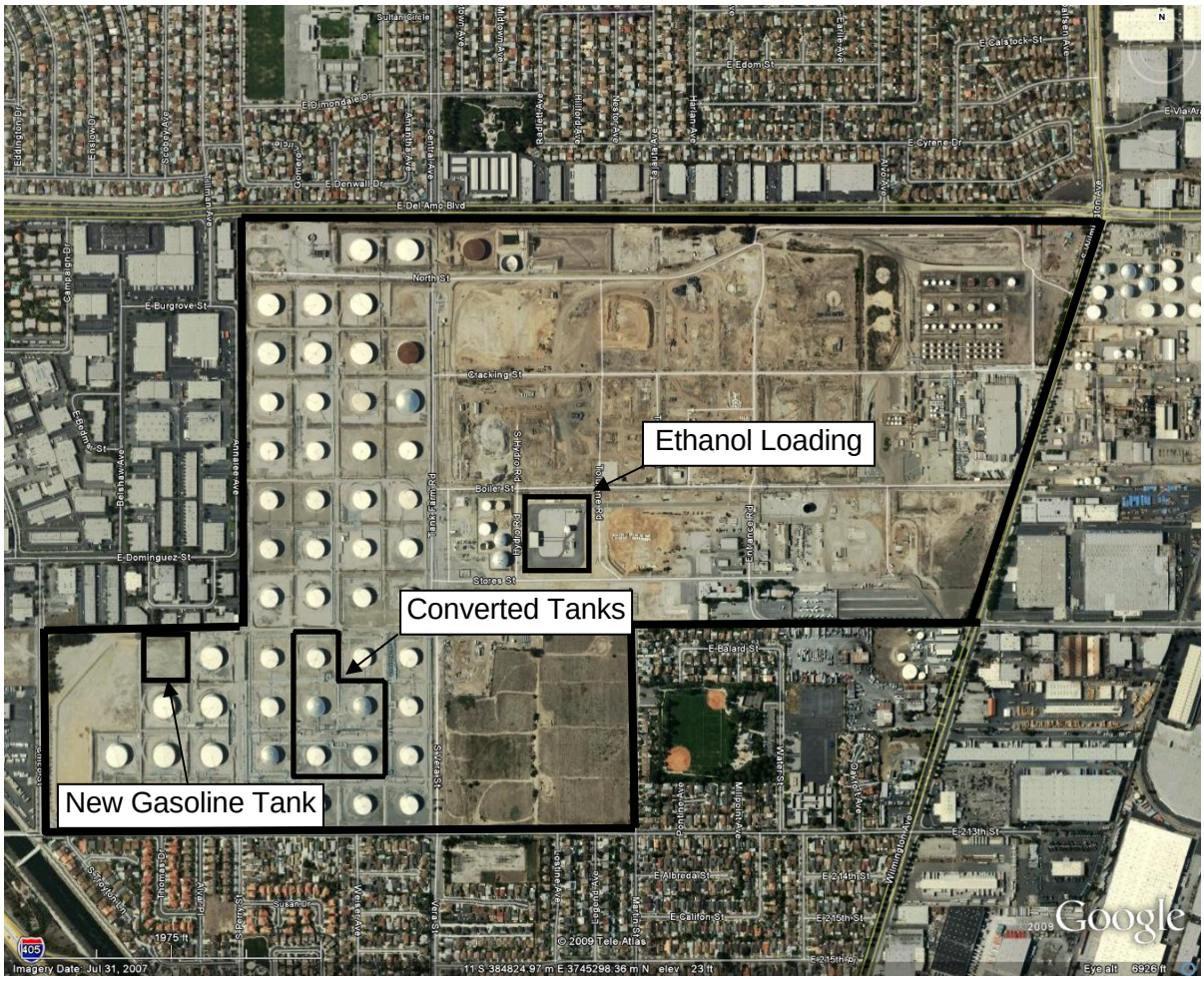

Figure 1-3. Site Plan Showing Locations of Project Components

Ethanol Throughput Increase for Existing Loading Lanes

Shell is proposing to increase the maximum permitted ethanol throughput for the existing two-lane truck loading rack from 30,000 bbl/day to 35,000 bbl/day.

The existing two-lane truck loading rack is capable of loading one 190-barrel capacity tanker truck in each lane in approximately 15 minutes, including the time required for the truck to pull into the loading lane, connect the loading arms, load the ethanol, disconnect the loading arms, and pull out of the loading lane. Thus, approximately 96 trucks could be loaded with ethanol at each loading lane in a 24-hour period. This corresponds to a maximum possible throughput of about 18,240 bbl/day per lane. Thus, although the facility does not currently load more than its maximum permitted throughput of 30,000 bbl/day, it is capable of loading a total of about 36,480 bbl/day through both lanes. Since this maximum possible throughput is more than the proposed throughput of 35,000 bbl/day, the proposed increase in throughput from 30,000 bbl/day to 35,000 bbl/day can be accomplished by increasing the number of trucks loaded each day without changing the time required to load each truck. Therefore, the proposed throughput

increase can be accommodated without modifications to the existing two-lane truck loading rack.

Volatile organic compound (VOC) emissions from the tanker truck loading operations are controlled by a vapor recovery and thermal oxidizer system. The air in the cargo spaces in the empty tanker trucks when they arrive at the Carson Facility has vapors which contain VOC from the trucks' previous loads. Ethanol displaces this air as it is loaded into the tanker trucks. The displaced air is collected by vapor recovery hoses connected to the trucks during the loading process, stored in a 50,000 cubic foot bladder tank, and then sent to a thermal oxidizer, where the organic vapors collected from both loading lanes are burned to control VOC emissions. The bladder tank acts as a surge vessel to avoid large fluctuations in the vapor flow rate to the combustion system and can store displaced vapors from about 47 tanker trucks with a capacity of 190 barrels. The combustion system has an input capacity of 600 cubic feet per minute (cfm). Loading a 190-barrel capacity tanker truck with ethanol displaces 1,067 cubic feet of vapors from the truck cargo space. Since the loading operations for a single truck require 15 minutes, the average vapor flow rate from loading one truck is about 71 cfm (1,067 cubic feet/15 minutes=71.1 cfm), and the average flow rate when two trucks are loaded at the same time is about 142 cfm, which is significantly less than the combustion system's capacity of 600 cfm. Since the proposed increase in maximum daily throughput will not change the time required to load each tanker truck, the flow rate to the combustion system will not increase. Therefore, the proposed throughput increase can be accommodated without modifications to the existing vapor recovery and thermal oxidizer system.

Although neither the existing two-lane truck loading rack nor the vapor recovery and control system will need to be physically modified to achieve the proposed increase in daily throughput, the SCAQMD Permit to Operate for the two-lane truck loading rack will need to be modified to increase the maximum permitted daily throughput. Because the permit will need to be modified, the vapor recovery and control system will be required to achieve current Best Available Control Technology (BACT) emission limits. Previous source tests of the system have demonstrated that current BACT emission limits can be achieved without modifying the control system.

Storage Tank Conversions from Gasoline to Ethanol Service

Shell is proposing to convert up to four existing storage tanks from gasoline to ethanol service to increase the amount of ethanol stored at the facility before it is loaded into trucks. The actual number of tanks that will need to be converted from gasoline to ethanol service will be determined by future customer requirements for ethanol storage on-site at the Carson Facility. However, the EIR will evaluate potential impacts from converting all four storage tanks to ensure that impacts are not underestimated. It is expected that up to four storage tanks that could be converted to storage of ethanol will provide sufficient storage capacity demand for ethanol. The specific storage tanks that will be converted will be selected based on operational requirements at the facility when the conversions occur. Shell anticipates that they will be selected from among the following five storage tanks: 505, 506, 509, 510 and 514. All five of these tanks are approximately 117 feet in diameter and 42 feet tall and have maximum storage capacities of approximately 69,000 barrels. As shown in Figure 3, they are all located in the same area within the facility. The tank conversion activities will consist of draining and degassing the tanks, replacing the tanks' internal coatings with a different coating material prior to filling, because the current internal tank coatings are not compatible with ethanol, and

lining the undersides of the tank roofs. The tanks' suction and discharge piping will also need to be modified to connect to the ethanol system piping, because the piping that carries ethanol at the facility is separated from the piping that carries gasoline.

New Single-Lane Truck Loading Rack

Shell is proposing to construct one new single-lane truck loading rack, with a permitted loading rate of 17,500 bbl/day, adjacent to the two existing truck loading lanes. New equipment to be installed for the new single-lane truck loading rack will include two new pumps (one active pump and one standby pump, each with a capacity of 2,700 gallons per minute), and three ethanol loading arms, with an ethanol meter, control valve and vapor recovery hose at each arm. The associated piping, conduits and a canopy covering the truck loading lane will be supported by a structural steel frame. The new lane will also have a control panel for control of loading operations. Constructing the new truck loading lane will require excavating approximately 1,500 cubic yards of soil for foundations and paving approximately 8,000 square feet.

The new truck loading rack will be connected to the vapor control system for the existing two-lane truck loading rack. Since, as stated previously, the average vapor flow rate when loading a single truck is about 71 cfm, the total vapor flow rate to the vapor control system will be approximately 213 cfm when the two existing loading lanes and the new loading lane are in use at the same time. This total flow rate is substantially less than the existing vapor combustion system's capacity of 600 cfm. Therefore, the proposed ethanol loading throughput increase from constructing the new single-lane truck loading rack can be accommodated without modifying the existing vapor control system to increase its capacity.

Loading Rack Operations Building Expansion

Shell is proposing to modify the existing ethanol truck loading rack control building in support of the increased ethanol delivery capacity to provide additional office space, additional space for training ethanol tanker truck drivers and storage space to replace an outdoor storage shed that will be displaced when the new single-lane truck loading rack is constructed. The building size will increase from 867 square feet to 1,727 square feet, and the expansion will add a conference room, storage room, kitchen area, an office and an additional restroom. The appearance of the new portion will match the existing one-story, masonry block building. The construction activities will include removal of part of an existing sidewalk, some internal partitions, partial ceiling systems, roof systems and some windows and doors to facilitate the building expansion; grading and excavation of an area approximately 30 feet wide by 70 feet long; building erection (walls and roof); and installation of utilities (plumbing, electrical, heating, ventilation and air conditioning).

New Gasoline Storage Tank

Shell is proposing to construct a new gasoline storage tank with a storage capacity of 158,000 barrels to replace gasoline storage capacity at the facility that will be transferred to ethanol service. The new gasoline storage tank will be 160 feet in diameter, with a shell height of 51.5 feet and will have a cone roof. It will be constructed on a currently vacant area within the Carson Facility. Constructing the new gasoline storage tank will consist of grading the area where it will be located, excavating approximately 10,000 cubic yards of soil for the tank foundation, constructing the concrete tank foundation, erecting the tank shell, hydrostatic

testing of the tank, constructing the tank roof, coating the interior and exterior of the tank, and installing suction and discharge piping.

PROJECT CONSTRUCTION SCHEDULE

Construction activities for the proposed Shell project are expected to begin when the EIR is certified and required agency permits and approvals are received. As shown in Figure 1-4, activities to convert the existing storage tanks from gasoline to ethanol service are expected to last for about six months, construction activities for the new single-lane truck loading rack are expected to last for about four months, construction activities for the loading rack operations building expansion are expected to last for about two months, and construction activities for the new gasoline storage tank are expected to last for about 19 months. Activities to convert one existing storage tank from gasoline to ethanol service are expected to last for about three months, and no more than two existing storage tanks will be converted at the same time. The construction schedule shown in Figure 4 assumes that two storage tanks will be converted during the first three months of the construction period and two more storage tanks will be converted during the next three months. Because this schedule results in the greatest potential overlap of construction activities, using it to evaluate potential impacts from construction activities in the EIR will ensure that impacts are not underestimated. Construction work shifts are anticipated to be one 10-hour shift per day, generally from 6:30 a.m. to 5:00 p.m. Activities to convert the existing storage tank from gasoline to ethanol service and to construct the new gasoline storage tank are anticipated to occur six days per week, from Monday through Saturday, and construction activities for the new single-lane truck loading rack and for the loading rack operations building expansion are anticipated to occur five days per week, from Monday through Friday.

Construction is not required to increase the throughput of the existing two-lane truck ethanol loading rack. The throughput will increase when the existing permits are revised, which will occur before the new single-lane truck ethanol loading rack is expected to be operational.

PROJECT OPERATION

No additional employees will be required on-site to operate any new equipment as a result of implementing the proposed project. The increase in ethanol delivery capability resulting from the increased permitted throughput for the existing two-lane loading rack will enable up to 26 additional truck trips per day from the Carson Facility, and the increase in ethanol delivery capability resulting from the new single-lane truck loading rack will enable up to 92 additional truck trips per day from the Carson Facility. Thus, the number of truck trips from the Carson Facility to deliver ethanol could increase by approximately 118 trips per day.

Figure 1-4. Shell Carson Facility Ethanol (E10) Project Construction Schedule

Component	Construction Month																		
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**
Storage Tank Conversions from Gasoline to Ethanol	■	■	■	■	■	■													
New Loading Lane	■	■	■	■															
Operations Building Expansion	■	■																	
New Gasoline Storage Tank	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

CHAPTER 2 - ENVIRONMENTAL CHECKLIST

INTRODUCTION

The environmental checklist provides a standard evaluation tool to identify a project's adverse environmental impacts. This checklist identifies and evaluates potential adverse environmental impacts that may be created by the proposed project.

GENERAL INFORMATION

Project Title:	Shell Carson Facility Ethanol (E10) Project
Lead Agency Name:	South Coast Air Quality Management District
Lead Agency Address:	21865 Copley Drive, Diamond Bar, CA 91765
Lead Agency Contact Person and Phone Number:	Barbara Radlein, (909) 396-2716
Project Sponsor's Name:	Shell Oil Products US, Carson Distribution Facility
Project Sponsor's Address:	20945 South Wilmington Avenue, Carson, California 90810
Project Sponsor's Contact Person and Phone Number:	Scott Adams, Shell Project Manager, (713) 241-2011
General Plan Designation:	Heavy Industrial, Light Industrial, and Business Park
Zoning:	Manufacturing, Heavy (MH)
Description of Project:	The Shell Carson Ethanol (E10) Project will occur at the Shell Carson Distribution Facility. The purpose of the proposed project is to increase the facility's capacity to deliver denatured ethanol by tanker trucks to the southern California market. The increase in denatured ethanol delivery capacity is in response to an increase in the amount of ethanol required to be blended into gasoline to comply with the 2007 amendments to the California Air Resources Board (CARB) Phase 3 Reformulated Gasoline (RFG) requirements. The proposed project includes the following changes to the Carson Distribution Facility: 1) increase the ethanol throughput at an existing two-lane tanker truck loading rack; 2) convert up to four existing storage tanks from gasoline to ethanol service; 3) install one new ethanol tanker truck loading lane and associated ethanol loading rack; 4) expand the existing ethanol loading rack operations building; and 5) install one new gasoline storage tank to replace gasoline storage capacity that will be transferred to ethanol service.
Surrounding Land Uses and Setting:	The Carson Facility is located in an area of mixed uses, with light industrial and single-family residential to the north, light industrial to the west, single-family residential to the south, light industrial

	to the south east and light and heavy industrial to the east.
Other Public Agencies Whose Approval is Required:	City of Carson

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The following environmental impact areas have been assessed to determine their potential to be affected by the proposed project. Any checked items represent areas that may be adversely affected by the proposed project. An explanation relative to the determination of impacts can be found following the checklist for each area.

☐	Aesthetics	☐	Geology and Soils	☐	Population and Housing
☐	Agricultural Resources	☑	Hazards and Hazardous Materials	☐	Public Services
☑	Air Quality	☑	Hydrology and Water Quality	☐	Recreation
☑	Biological Resources	☐	Land Use and Planning	☐	Solid/Hazardous Waste
☐	Cultural Resources	☐	Mineral Resources	☑	Transportation/Traffic
☐	Energy	☑	Noise	☑	Mandatory Findings

DETERMINATION

On the basis of this initial evaluation:

☐ I find the proposed project, COULD NOT have a significant effect on the environment, and that a NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be significant effects in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☑ I find that the proposed project MAY have a significant effect(s) on the environment, and an ENVIRONMENTAL IMPACT REPORT will be prepared.

☐ I find that the proposed project MAY have a "potentially significant impact" on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Date: April 15, 2010 **Signature:** Steve Smith

Steve Smith, Ph.D.
Program Supervisor
Planning, Rules, and Area Sources

ENVIRONMENTAL CHECKLIST AND DISCUSSION

		Potentially Significant Impact	Less Than Significant Impact	No Impact
I.	**AESTHETICS.** Would the project:			
a)	Have a substantial adverse effect on a scenic vista?	☐	☐	☑
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☑
c)	Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☑	☐
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☑	☐

Significance Criteria

The proposed project impacts on aesthetics will be considered significant if:

- The project will block views from a scenic highway or corridor.
- The project will adversely affect the visual continuity of the surrounding area.
- The impacts on light and glare will be considered significant if the project adds lighting which would add glare to residential areas or sensitive receptors.

Discussion

I. a), b) & c) The proposed project is located within an existing petroleum products distribution facility and is consistent with the current ongoing operations at the facility. Converting the storage tanks from gasoline to ethanol service will not alter the tanks' appearance. The new single-lane ethanol truck loading rack and loading lane will be located adjacent to the existing two-lane ethanol truck loading rack and loading lanes and will be similar in appearance to the existing loading rack and lanes. The expanded ethanol loading rack operations building will be larger than the existing building, but the construction materials and the building height will be the same.

The single additional gasoline storage tank will be located within an existing tank farm at the Carson Facility. As shown in Figure 1-3, three existing storage tanks are adjacent to the location for the proposed new gasoline storage tank. These three storage tanks are approximately 40 feet tall and 144 feet in diameter. The proposed new gasoline storage tank will be 52 feet tall and 160 feet in diameter. Thus, the new gasoline storage tank will be approximately 30 percent taller and 11 percent larger in diameter than the nearby existing storage tanks. However, it will be similar in shape and color to the adjacent existing storage tanks.

Because the Carson Facility is located in a heavily industrialized area, no scenic vistas or scenic resources are located in the vicinity of the Carson Facility. Therefore, the proposed project would not affect scenic vistas or scenic resources.

Construction activities associated with the proposed project are not expected to adversely impact views and aesthetics resources since the construction activities are expected to occur within the confines of the Carson Facility, a heavy industrial facility, and are expected to introduce only minor visual changes to areas outside the facility, if at all. Except for the use of cranes, the majority of the construction equipment is expected to be low in height and not substantially visible to the surrounding area due to existing fencing along the property lines and existing structures currently within the facility that would buffer the views of the construction activities. Further, the construction activities will be temporary in nature and will cease following completion of the construction activities.

Once construction is completed, the new ethanol truck loading rack and lane, expanded loading rack operations building, gasoline storage tank, and associated equipment of the proposed project are not expected to substantially further degrade the existing visual character of the facility. The new single-lane ethanol truck loading rack and the expanded loading rack operations building will not be visible from outside the Carson Facility as they will be located in the central portion of the facility (See Figure 1-3). Although the new gasoline storage tank will be larger than existing storage tanks adjacent to it, it will only be readily visible from light industrial facilities on the western side of the facility; existing storage tanks located south of the new gasoline storage tank will largely block views of the new storage tank from residences located south of the Carson Facility.

I. d) Construction activities are only anticipated to take place during daylight hours. Therefore, construction activities will not create a substantial new source of light.

New lighting will be provided as necessary for operation of the proposed project, in accordance with applicable safety standards. Additional lighting for the new ethanol truck loading rack and for the expanded loading rack operations building will be consistent with existing lighting and is not expected to be distinguishable from existing lighting when viewed from outside the Carson Facility. Thus, operation of these components of the proposed project will not introduce substantial new sources of light. The new lighting required for the gasoline storage tank will consist of a manually-operated gauging light used for illumination at the top of the storage tank during manual measurements of the height of the surface of the gasoline stored in the tank. This light is similar to what is present on existing nearby storage tanks. It will only operate intermittently and will only be visible from light industrial facilities on the western side of the facility. The nearest residential or sensitive receptors are residences located approximately 1,100 feet south of the location of the new storage tank. Views of the new storage tank from these residences will be blocked by existing storage tanks between the residences and the new tank. Therefore, the proposed project will not create a new source of substantial light or glare visible from residential or sensitive receptors.

Based upon these considerations, significant aesthetics impacts are not expected from construction and operation of the proposed project and will not be further analyzed in the Draft EIR.

		Potentially Significant Impact	Less Than Significant Impact	No Impact
II.	**AGRICULTURE RESOURCES.** Would the project:			
a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☑
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☑
c)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	☐	☐	☑

Significance Criteria

Project-related impacts on agricultural resources will be considered significant if any of the following conditions are met:

- The proposed project conflicts with existing zoning or agricultural use or Williamson Act contracts.
- The proposed project will convert prime farmland, unique farmland or farmland of statewide importance as shown on the maps prepared pursuant to the farmland mapping and monitoring program of the California Resources Agency, to non-agricultural use.
- The proposed project would involve changes in the existing environment, which due to their location or nature, could result in conversion of farmland to non-agricultural uses.

Discussion

II. a), b) & c) All construction and operational activities that would occur as a result of implementing the proposed project will within the confines of the existing Carson Facility. The proposed project would be consistent with the zoning requirements for the facility, and there are no agricultural resources or operations on or near the Carson Facility. No agricultural resources including, Williamson Act contracts, are located within or would be impacted by construction activities at the Carson Facility. Therefore, the proposed project would not result in any new construction of buildings or other structures that would convert farmland to non-agricultural use or conflict with zoning for agricultural use or a Williamson Act contract.

Based upon these considerations, significant agricultural resources impacts are not expected from construction and operation of the proposed project and will not be further analyzed in the Draft EIR.

		Potentially Significant Impact	Less Than Significant Impact	No Impact
III.	**AIR QUALITY** Would the project:			
a)	Conflict with or obstruct implementation of the applicable air quality plan?	☑	☐	☐
b)	Violate any air quality standard or contribute to an existing or projected air quality violation?	☑	☐	☐
c)	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	☑	☐	☐
d)	Expose sensitive receptors to substantial pollutant concentrations?	☑	☐	☐
e)	Create objectionable odors affecting a substantial number of people?	☐	☑	☐
f)	Diminish an existing air quality rule or future compliance requirement resulting in a significant increase in air pollutant(s)?	☐	☐	☑

Significance Criteria

To determine whether or not air quality impacts from the proposed project may be significant, impacts will be evaluated and compared to the criteria in Table 2-1. If impacts exceed any of the criteria in Table 2-1, they will be considered further in the Draft EIR. As necessary, all feasible mitigation measures will be identified in the Draft EIR and implemented to reduce significant impacts to the maximum extent feasible.

Table 2-1
SCAQMD Air Quality Significance Thresholds

Mass Daily Thresholds [a]		
Pollutant	**Construction** [b]	**Operation** [c]
NOx	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM10	150 lbs/day	150 lbs/day
PM2.5	55 lbs/day	55 lbs/day
SOx	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day
Toxic Air Contaminants (TACs) and Odor Thresholds		
TACs (including carcinogens and non-carcinogens)	Maximum Incremental Cancer Risk ≥ 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million) Hazard Index ≥ 1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	
Ambient Air Quality for Criteria Pollutants [d]		
NO2 1-hour average annual average	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 0.18 ppm (state) 0.03 ppm (state)	
PM10 24-hour average annual arithmetic average	10.4 $\mu g/m^3$ (construction)[e] & 2.5 $\mu g/m^3$ (operation) 1.0 $\mu g/m^3$	
PM2.5 24-hour average	10.4 $\mu g/m^3$ (construction)[e] & 2.5 $\mu g/m^3$ (operation)	
Sulfate 24-hour average	1 $\mu g/m^3$	
CO 1-hour average 8-hour average	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 20 ppm (state) 9.0 ppm (state/federal)	

[a] Source: SCAQMD CEQA Handbook (SCAQMD, 1993)
[b] Construction thresholds apply to both the South Coast Air Basin and Coachella Valley (Salton Sea and Mojave Desert Air Basins).
[c] For Coachella Valley, the mass daily thresholds for operation are the same as the construction thresholds.
[d] Ambient air quality thresholds for criteria pollutants based on SCAQMD Rule 1303, Table A-2 unless otherwise stated.
[e] Ambient air quality threshold based on SCAQMD Rule 403.

KEY: lbs/day = pounds per day ppm = parts per million $\mu g/m^3$ = microgram per cubic meter ≥ greater than or equal to

III. a) The Air Quality Management Plan (AQMP) is a blueprint of control measures designed to meet ambient air quality standards. The control measures are developed by compiling a current air pollutant emissions inventory, projecting the emissions inventory to future years, evaluating the impacts of future emissions on ambient air quality through air quality modeling, determining reductions in the projected future emissions needed to attain the standards, and devising control measures that will achieve those emission reductions. The AQMP is typically updated every three

years. The last update to the SCAQMD AQMP was in 2007 (SCAQMD, 2007). The 2007 AQMP demonstrates that the applicable ambient air quality standards can be achieved within the timeframes required under federal law. Consistency of the proposed project with the AQMP will be evaluated in the Draft EIR.

III. b), c) & d) Project construction may cause short-term air quality impacts. Nitrogen oxides (NOx), sulfur oxides (SOx), carbon monoxide (CO), volatile organic compounds (VOCs), and fugitive dust (PM10 and PM2.5) may be generated from construction-related traffic including construction worker commute trips, material delivery trips, etc.; the operation of construction equipment; and related disturbances to the ground surface. The construction of a project as comprehensive as the proposed project will occur in phases. The air quality impacts of all construction emissions during these phases will be evaluated in the Draft EIR.

An increase in emissions may occur during the operation of the proposed project. Operational emission increases of criteria pollutants from both stationary and mobile sources, such as ethanol delivery trucks, will be calculated in the Draft EIR.

The project may also alter the amount and nature of toxic air contaminant emissions from the Carson Facility as well as from ethanol delivery trucks. The Draft EIR will include estimates of project-related toxic emissions changes, and a human health risk assessment will be conducted to determine the net effect of expected changes in toxic air contaminant emissions from the Carson Facility and ethanol delivery trucks and whether they adversely affect sensitive receptors.

In addition, construction and operational activities associated with the proposed project also have the potential to increase emissions of greenhouse gases (GHGs); these potential increases will be evaluated in the Draft EIR as part of the cumulative impacts discussion.

III. e) Proposed project construction and operation are not expected to cause objectionable odorous emissions that would noticeably change the nature and intensity of odors caused by substances emitted from the Carson Facility. However, because fugitive emissions of gasoline vapors and ethanol are expected to increase during operation of the proposed project, the potential for concentrations caused by these emissions to cause objectionable odors will be addressed in the Draft EIR.

III. f) The proposed project must comply with applicable SCAQMD requirements and control measures for new or modified sources. For example, new emission sources associated with the proposed project are required to comply with the SCAQMD's Regulation XIII - New Source Review requirements that include the use of best available control technology (BACT) and offsetting emission increases over one pound per day with emission reduction credits (ERCs) at applicable offset ratios. Further, the proposed project must also comply with prohibitory rules, such as Rule 403, for the control of fugitive dust. By meeting these requirements, the proposed project is not expected to diminish an existing air quality rule or a future compliance requirement.

Based upon these considerations, air quality impacts associated with increased emissions of criteria pollutants, toxic air contaminants and GHGs during the construction and operation phases of the proposed project will be evaluated in the Draft EIR.

		Potentially Significant Impact	Less Than Significant Impact	No Impact
IV.	**BIOLOGICAL RESOURCES.** Would the project:			
a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☑	☐	☐
b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☑
c)	Have a substantial adverse effect on federally protected wetlands as defined by §404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☑
d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☑
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☑
f)	Conflict with the provisions of an adopted Habitat Conservation plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☑

Significance Criteria

The impacts on biological resources will be considered significant if any of the following criteria apply:

- The project results in a loss of plant communities or animal habitat considered to be rare, threatened or endangered by federal, state or local agencies.

- The project interferes substantially with the movement of any resident or migratory wildlife species.
- The project adversely affects aquatic communities through construction or operation of the project.

Discussion

IV. a) A biological assessment of the project site was conducted on July 22, 2009. In general, the majority of the project site consists of urban or built-up land, which is mostly devoid of natural habitat. During the survey of the project site, common urban-tolerant wildlife species were observed. These include northern mockingbird (*Mimus polyglottus*), Mourning dove (*Zenaida macroura*), House Sparrow (*Passer domesticus*), Common grackle (*Quiscalus quiscula*), Anna's hummingbird (*Calypte anna*), American kestrel (*Falco sparverius*), desert cottontail (*Sylvilagus audubonii*) and California ground squirrel (*Spermophilus beecheyi*). No special-status plants, wildlife, or plant communities were observed.

Within the specific footprint of the proposed project, there is no suitable habitat to support special-status species. However, marginal habitat in the form of a small grove of non-native eucalyptus (*Eucalyptus* sp) trees, a few stands of ornamental (non-native) California fan palms (*Washingtonia* sp.) and scattered stands of native emerging mulefat (*Baccharis salicifolia*) occur outside, but in the vicinity of, of the proposed project footprint. As this vegetation may provide habitat for some special-status species, potential impacts to special status species will be addressed in the Draft EIR.

IV. b), c), & d) The proposed project would be located entirely within the existing boundaries of the Carson Facility, which has already been developed for industrial uses. There is no riparian habitat or wetlands located within the Carson Facility; therefore, the proposed project will not interfere with such habitat. The proposed project is not expected to cause any impact to migratory species nor create a barrier to the movement of migratory species. As the proposed project will not impact wetlands, riparian habitats, or any other surface water features, the proposed project is not expected to cause any adverse affects to aquatic communities.

IV. e) & f) As the proposed project will take place entirely at the Carson Facility, an existing heavy industrial facility, the proposed project is not expected to conflict with any local policies or ordinances protecting biological resources or local, regional, or state conservation plans. The proposed project will not conflict with any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or any other habitat conservation plan, as all activities associated with the proposed project will occur at the existing Carson Facility.

Based upon these considerations, potential impacts on biological resources in the form of special status species may be significant and will therefore be evaluated in the Draft EIR.

		Potentially Significant Impact	Less Than Significant Impact	No Impact
V.	**CULTURAL RESOURCES.** Would the project:			
a)	Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☑
b)	Cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?	☐	☑	☐
c)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☑	☐
d)	Disturb any human remains, including those interred outside formal cemeteries?	☐	☑	☐

Significance Criteria
Impacts to cultural resources will be considered significant if:

- The project results in the disturbance of a significant prehistoric or historic archaeological site or a property of historic or cultural significance to a community or ethnic or social group.
- Unique paleontological resources are present that could be disturbed by construction of the proposed project.
- The project would disturb human remains.

Discussion
V. a) CEQA Guidelines state that generally, a resource shall be considered "historically significant" if the resource meets the criteria for listing in the California Register of Historical Resources, which include the following:

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- Is associated with the lives of persons important in our past;
- Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values;
- Has yielded or may be likely to yield information important in prehistory or history (CEQA Guidelines §15064.5).

Buildings, structures, and other potential culturally significant resources that are less than 50 years old are generally excluded from listing in the National Register of Historic Places, unless they are shown to be exceptionally important. The proposed project will not impact any existing structures at the Carson Facility that are more than 10 years old, that have contributed to California history, or

that posses high artistic values. Therefore, the proposed project is not expected to cause any impacts to significant historic cultural resources.

V. b), c) & d) All construction and operational activities that would occur as a result of implementing the proposed project will occur within the confines of the existing Carson Facility. The proposed project would be consistent with the zoning requirements for the facility. The areas within the facility where construction for the proposed project will take place have previously been disturbed. No human remains or cultural artifacts were discovered when the existing two-lane truck loading rack was constructed in 2003. Additionally, a cultural resources records search for the Carson Facility was conducted at the South Central Costal Information Center at California State University, Fullerton, in September 2007. The records search found that no cultural resources had been recorded within the Carson Facility.

While the likelihood of encountering previously unknown cultural or paleontological resources during the construction of the proposed project is low, the potential does exist that buried resources may be uncovered. Any such impact would be reduced to less than significant by using the following construction practices and complying with all laws and regulations:

- Shell Carson will require cultural resources training for construction workers involved in excavation activities. This training will help workers identify the kinds of resources that could be uncovered, and the appropriate steps to take should such resources be discovered.
- Shell Carson will require that construction cease if potential Native American cultural resources are exposed during excavation and will require that a representative of the Gabrielino/Tongva tribe will be available prior to restarting construction to monitor further excavation activities, assess findings, and help develop a mitigation plan.
- Shell Carson will require that construction cease and will contact the Los Angeles County Coroner's office if human remains are unearthed The remains will be evaluated with respect to origin and disposition. Shell Carson will notify the Native American Heritage Commission if the remains are determined to be of Native American decent.

Based upon these considerations, significant cultural resources impacts are not expected from construction and operation of the proposed project and will not be further analyzed in the Draft EIR.

		Potentially Significant Impact	**Less Than Significant Impact**	**No Impact**
VI.	**ENERGY.** Would the project:			
a)	Conflict with adopted energy conservation plans?	☐	☐	☑
b)	Result in the need for new or substantially altered power or natural gas utility systems?	☐	☐	☑

		Potentially Significant Impact	Less Than Significant Impact	No Impact
c)	Create any significant effects on local or regional energy supplies and on requirements for additional energy?	☐	☑	☐
d)	Create any significant effects on peak and base period demands for electricity and other forms of energy?	☐	☑	☐
e)	Comply with existing energy standards?	☐	☐	☑

Significance Criteria

The impacts to energy resources will be considered significant if any of the following criteria are met:

- The proposed project conflicts with adopted energy conservation plans or standards.
- The proposed project results in substantial depletion of existing energy resource supplies.
- An increase in demand for utilities impacts the current capacities of the electric and natural gas utilities.
- The proposed project uses non-renewable resources in a wasteful and/or inefficient manner.

Discussion

VI. a) & e) The proposed project is not subject to any adopted energy conservation plans, so it will not conflict with energy conservation plans. Any new electrical equipment installed for the proposed project will be required to comply with established energy standards.

VI. b) It is not expected that natural-gas fired construction equipment or vehicles will be used during construction for the proposed project. Diesel-fueled generators will be used to provide electricity to electrically powered construction equipment, because electrical outlets are not available at the locations where electrically powered construction will be used. Thus, there will not be a need for new or substantially altered electrical power or natural gas utility systems during construction.

New electrically powered pumps, valves and other electrically powered equipment, such as control systems, are anticipated to increase the demand for electricity during operation of the proposed project by approximately 480 kilowatts (kW). The maximum total electrical power consumed by the Carson Facility during 2010 was approximately 3360 kW. Thus, the increased demand for electricity during operation of the proposed project is about 14 percent of the current total demand, and this increase will not require alterations to the existing electricity infrastructure at the facility. Additionally, the increased daily operating time of the vapor control combustion system will increase daily natural gas consumption by about 200 million British thermal units (MMBtu) per day, but it will not increase the natural gas consumption rate when the combustion system is in operation. Therefore, the natural gas infrastructure at the facility will not need to be modified, since it currently accommodates the consumption rate when the system is in operation.

VI. c) & d) Although construction equipment and vehicles will use diesel fuel and gasoline, use of these resources in this manner is not considered a wasteful use of energy resources. Thus, construction for the proposed project will create less than significant impacts on local and regional energy supplies.

Additionally, the relatively small increases in electricity and natural gas consumption during operation of the proposed project will not create any significant negative impacts on local or regional energy supplies and would not create a significant effect on either peak or base-load energy demand.

There will be an increase in diesel fuel usage caused by the increase in ethanol tanker truck trips. While diesel fuel is a non-renewable resource, the use of diesel fuel to transport additional ethanol to gasoline distribution facilities to enable them to comply with the requirements of the 2007 amendments to the CARB Phase 3 Reformulated Gasoline regulations is not considered a wasteful or inefficient use of energy resources.

Based upon these considerations, significant impacts to energy are expected from the construction or operation of the proposed project are not expected and will not be further analyzed in the Draft EIR.

		Potentially Significant Impact	Less Than Significant Impact	No Impact
VII.	**GEOLOGY AND SOILS.** Would the project:			
a)	Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☑	☐
	• Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	☐	☐	☑
	• Strong seismic ground shaking?	☐	☑	☐
	• Seismic-related ground failure, including liquefaction?	☐	☑	☐
	• Landslides?	☐	☐	☑
b)	Result in substantial soil erosion or the loss of topsoil?	☐	☑	☐

		Potentially Significant Impact	Less Than Significant Impact	No Impact
c)	Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☑	☐
d)	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☑	☐
e)	Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☑

Significance Criteria

The impacts on the geological environment will be considered significant if any of the following criteria apply:

- Topographic alterations would result in significant changes, disruptions, displacement, excavation, compaction or over covering of large amounts of soil.
- Unique geological resources (paleontological resources or unique outcrops) are present that could be disturbed by the construction of the proposed project.
- Exposure of people or structures to major geologic hazards such as earthquake surface rupture, ground shaking, liquefaction or landslides.
- Secondary seismic effects could occur which could damage facility structures, e.g., liquefaction.
- Other geological hazards exist which could adversely affect the facility, e.g., landslides, mudslides.

Discussion

VII. a), c), & d) The proposed project is located within the existing Carson Facility, which is located within a seismically active region of Southern California. A Regional Fault Map in the most recent City of Carson General Plan lists one active fault located within the City - the Avalon-Compton fault zone, which is part of the larger Newport-Inglewood fault zone. The Newport-Inglewood fault zone is considered capable of generating an earthquake of magnitude 7.0 on the Richter Scale, while the Avalon-Compton fault is considered capable of generating an earthquake of magnitude 4.0 or greater.

According to the Safety Element of the City of Carson General Plan, the project site, as well as most of the City of Carson, is located in an area susceptible to liquefaction. Liquefaction is a process by which water-saturated soil transforms from a solid to a liquid state because of a sudden shock, such as from an earthquake. Basic conditions necessary for liquefaction to occur (the right

soil condition, water saturation, and a source of shaking, such as an earthquake) all are present at the Carson Facility.

The proposed project is not located within a hillside area that could be susceptible to landslides. The probability of seismically-induced landslides affecting the proposed project area is considered to be negligible due to the lack of topographic relief across the area.

Potential adverse impacts from seismic events, including liquefaction, are anticipated to be less than significant because the proposed project is required to comply with the Uniform Building Code and all other applicable state and local building codes and standards. As part of the issuance of building permits, the City of Carson is responsible for assuring that the proposed project complies with the Uniform Building Code and can conduct inspections to ensure compliance. The Uniform Building Code is considered to be a standard safeguard against major structural failures and loss of life. The basic formulas used for the Uniform Building Code seismic design require determination of the seismic zone and site coefficient, which represents the foundation condition at the site. The Uniform Building Code requirements also consider liquefaction potential and establish stringent requirements for building foundations in areas potentially subject to liquefaction. Thus, compliance with the Uniform Building Code will limit the potential adverse effects of the proposed project and, as a result, the proposed project is not expected to alter the exposure of people or property to geological hazards such as earthquakes, landslides, mudslides, ground failure, or other natural hazards. Based on this information, substantial exposure of people or structures to the risk of loss, injury, or death involving the rupture of an earthquake fault, seismic ground shaking, ground failure or landslides is not anticipated to be significant.

VII. b) During construction of the proposed project, a slight possibility exists for temporary erosion resulting from excavation and grading activities. These activities are expected to be minor as the Carson Facility is generally flat and has previously been graded. Wind erosion is not expected to occur to any appreciable extent, as the proposed project would be required to comply with SCAQMD Rule 403 - Fugitive Dust, which requires the application of best available control measures to minimize fugitive dust emissions, including fugitive dust emissions caused by wind erosion of disturbed surfaces.

VII. e) The project will be located at the Carson Facility, which is connected to the sewer system. The Carson Facility does not use a septic or other alternative wastewater disposal method. Furthermore, no increase in wastewater is expected as a result of operation of the proposed project.

Based upon these considerations, significant impacts to geology or soils are not expected to occur as a result of the proposed project and will not be further addressed in the Draft EIR.

	Potentially Significant Impact	**Less Than Significant Impact**	**No Impact**

		Potentially Significant Impact	Less Than Significant Impact	No Impact
VIII.	**HAZARDS AND HAZARDOUS MATERIALS.** Would the project:			
a)	Create a significant hazard to the public or the environment through the routine transport, use, and disposal of hazardous materials?	☑	☐	☐
b)	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☑	☐	☐
c)	Emit hazardous emissions, or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☑	☐	☐
d)	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would create a significant hazard to the public or the environment?	☐	☑	☐
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☑
f)	For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☑
g)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☑
h)	Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☑
i)	Significantly increased fire hazard in areas with flammable materials?	☑	☐	☐

Significance Criteria
Impacts associated with hazards will be considered significant if any of the following occur:

- Non-compliance with any applicable design code or regulation.
- Non-conformance to National Fire Protection Association standards.
- Non-conformance to regulations or generally accepted industry practices related to operating policy and procedures concerning the design, construction, security, leak detection, spill containment or fire protection.
- Exposure to hazardous chemicals in concentrations equal to or greater than the Emergency Response Planning Guideline (ERPG) 2 levels.

Discussion
VIII. a), b) & i) The proposed project may increase the potential for fires or explosions at the Carson Facility associated with the increased storage of gasoline in the proposed new gasoline storage tank. The proposed project may also increase potential off-site hazards in the event of an accident involving the proposed increase in the number of tanker truck trips to deliver ethanol from the Carson Facility. The potential hazards related to the proposed project are potentially significant and will be addressed in the Draft EIR.

VIII. c) CEQA Guidelines §15186(b) requires that the affected school district be consulted when a proposed project may create hazardous emissions, or handle hazardous or acutely hazardous materials, substances or waste within one-quarter of a mile of an existing or proposed school. Del Amo Elementary School is located within one-quarter mile of the Carson Facility. Therefore, potential hazardous impacts to the school from the proposed project will be addressed in the Draft EIR.

VIII. d) The Carson Facility is on a list compiled by CalEPA pursuant to Government Code §65962.5. The Carson Facility is listed because it is on a list of Cleanup and Abatement Orders prepared by the State Water Resources Control Board (Order No. 97-120). However, the proposed project equipment and activities are similar to the existing equipment and activities related to storing and exporting organic liquids. While there are ongoing remediation activities at the Carson Facility, the activities related to the proposed project will not be located in the vicinity of the ongoing remediation activities and are not expected to adversely impact the remediation activities currently being undertaken as a result of the Carson Facility being listed pursuant to Government Code §65962.5. Should any disturbance or excavation of contaminated soils (see discussion under "Solid/Hazardous Wastes") be necessary, they will be performed in accordance with applicable requirements. Therefore, this topic will not be further addressed in the Draft EIR.

VIII e) & f) The facility is not located within an airport land use plan or within two miles of a public or private airport. Therefore, no safety hazards are expected from the proposed project on any airports in the region.

VIII g) Shell maintains two required emergency response plans for the Carson Facility. A Spill Prevention, Control, and Countermeasure (SPCC) plan, as required by the US Environmental Protection Agency, is kept onsite and regularly updated. The SPCC plan includes requirements for secondary containment, employee training, and emergency response procedures. A Hazardous

Material Business Plan (HMBP) is also maintained for the site. The HMBP requirements are overseen by the Los Angeles County Fire Department, which is the Certified Unified Program Agency (CUPA) with jurisdiction for the City of Carson. The HMBP is updated annually, and lists the quantities and locations of all hazardous materials stored onsite, emergency response procedures in the case of an accidental release or other emergency, and employee training requirements. Clear access to the Carson Facility for emergency response vehicles is assured at all times. The SPCC and HMBP will be updated to reflect the changes associated with the proposed project. The proposed project is not expected to have an impact on the adopted emergency response plans or emergency evacuation plans at the facility.

VIII. h) The proposed project is not located in or near wildlands, and, therefore will not increase the risk of fires in wildlands.

Based upon these considerations, potential impacts from hazards and hazardous materials associated with the proposed project may be significant and will therefore be evaluated in the Draft EIR.

	Potentially Significant Impact	**Less Than Significant Impact**	**No Impact**
IX. HYDROLOGY AND WATER QUALITY. Would the project:			
a) Violate any water quality standards or waste discharge requirements?	☐	☑	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g. the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☑
c) Substantially alter the existing drainage pattern of the site or area, including through alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site?	☐	☑	☐

		Potentially Significant Impact	Less Than Significant Impact	No Impact
d)	Substantially alter the existing drainage pattern of the site or area, including through alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	☐	☑	☐
e)	Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☑	☐
f)	Otherwise substantially degrade water quality?	☐	☑	☐
g)	Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☑
h)	Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☑
i)	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☑
j)	Inundation by seiche, tsunami, or mudflow?	☐	☐	☑
k)	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☑	☐
l)	Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☑
m)	Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☑

		Potentially Significant Impact	Less Than Significant Impact	No Impact
n)	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☑	☐	☐
o)	Require a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☑	☐

Significance Criteria

Potential impacts on water resources will be considered significant if any of the following criteria apply:

Water Quality:

- The project will cause degradation or depletion of ground water resources substantially affecting current or future uses.
- The project will cause the degradation of surface water substantially affecting current or future uses.
- The project will result in a violation of National Pollutant Discharge Elimination System (NPDES) permit requirements.
- The capacities of existing or proposed wastewater treatment facilities and the sanitary sewer system are not sufficient to meet the needs of the project.
- The project results in substantial increases in the area of impervious surfaces, such that interference with groundwater recharge efforts occurs.
- The project results in alterations to the course or flow of floodwaters.

Water Demand:

- The existing water supply does not have the capacity to meet the increased demands of the project, or the project would use a substantial amount of potable water.
- The project increases demand for water by more than five million gallons per day.

Discussion

IX. a), f), k), l) & o) During construction activities, the proposed project may use minor quantities of water for dust suppression and soil compaction associated with site preparation and grading approximately 0.7 acre. In addition, the proposed new gasoline storage tank and new piping associated with the proposed project will require the use of water for one-time hydrostatic testing during construction. This water will be disposed of in accordance with applicable existing regulations, and it is expected that wastewater volumes will be within the capacity of existing wastewater treatment permits.

The Carson Facility is currently permitted to discharge industrial wastewater and storm water to the Los Angeles County Sanitation District's (LACSD) sanitary sewer system under industrial user permit number 15558. During extreme storm events, when the capacity of the sewer system is reached, and the on-site storm water retention/detention basin is full, the Carson Facility is permitted to discharge treated storm water to the Dominguez Channel under the Los Angeles Regional Water Quality Control Board (RWQCB) Order Number R4-2007-0026, National Pollution Discharge Elimination System (NPDES) Number CA0000809.

Operation of the proposed project is not expected to increase water use because gasoline storage tanks and ethanol loading racks do not require water for their operation and, thus, will not increase wastewater discharge. Wastewater will continue to be discharged in compliance with LACSD industrial user permit. Therefore, the proposed project will not violate any water quality standards or waste discharge requirements, substantially degrade water quality, exceed wastewater treatment requirements of the applicable RWQCB, require construction of new water or wastewater treatment facilities or expansion of existing facilities, or cause significant adverse impacts on wastewater.

The Carson Facility has an existing storm water management program. The areas within the facility where the proposed new single-lane truck loading rack, the proposed ethanol loading rack operations building expansion and the proposed new gasoline storage tank will be constructed are currently connected to the existing storm water management system and will continue to be connected to the existing system after construction is completed. The proposed project will not affect, alter, or in any other way change the effectiveness of the ongoing industrial wastewater and storm water management program at the Carson Facility.

IX. b) & n) Operation of the proposed project will not result in an increased usage of groundwater because gasoline storage tanks and ethanol loading racks do not require water for their operation; therefore no impacts to groundwater supplies are expected. Because of the nature of the soils at the Carson Facility, very minimal amounts of storm water infiltrate the ground to recharge the aquifer. In addition, the proposed project is expected to result in conversion of only about 0.7 acre of bare, unpaved dirt to covered surface. Therefore, the proposed project will not significantly interfere with groundwater recharge.

During construction activities, the proposed project may use minor quantities of water for dust suppression and soil compaction associated with site preparation and grading of a total of approximately 0.7 acres. In addition, the proposed new gasoline storage tank and new piping associated with the proposed project will require the use of water for hydrostatic testing during construction. Reclaimed water is not currently available for use at the Carson Facility. Therefore, potable water will need to be used for dust suppression and soil compaction during construction activities and for hydrostatic testing. Preliminary analysis of hydrostatic testing of the new gasoline storage tank indicates it may require a total of approximately 7.7 million gallons of water over multiple days, with a maximum daily use of less than two million gallons. As a result, potential water supply impacts caused by hydrostatic testing will be further evaluated in the Draft EIR.

Operation of the proposed project is not expected to increase water use because gasoline storage tanks and ethanol loading racks do not require water for their operation. Therefore, the proposed

project will not cause significant adverse impacts to groundwater or water demand during operation.

IX. c), d), e), & m) The Carson Facility has been designed to capture storm water, which is diverted and held in a retention/detention basin. As discussed previously in IX. a), f), k), l) & o), the Carson Facility generally discharges storm water to the sanitary sewer system. During major storm events, water is occasionally discharged to the Dominguez Channel, which is located adjacent to the Carson Facility. This discharge is regulated by the facility's NPDES permit, as discussed previously. The areas within the facility where the proposed new single-lane truck loading rack, the proposed ethanol loading rack operations building expansion and the proposed new gasoline storage tank will be constructed are currently connected to the existing storm water management system and will continue to be connected to the existing system after construction is completed. Based on these factors, the proposed project will not cause a significant impact to the on-site storm water drainage system or storm water management system.

The proposed project is not expected to substantially alter the existing drainage pattern at the Carson Facility because it is relatively flat and paved and, therefore, is not expected to substantially affect the existing storm water management system. Construction associated with the proposed project will occur in curbed areas to contain any runoff. Any runoff occurring will continue to be handled by the Carson Facility's wastewater system prior to discharge. Storm water runoff will be collected and discharged in accordance with the Carson Facility's discharge permit terms and conditions. The Storm Water Pollution Prevention Plan and the Spill Prevention Control and Countermeasure Plan may need to be updated to reflect changes associated with the proposed project.

The project is located entirely within the confines of the existing Shell Carson Facility, a heavy industrial facility, and it does not involve modifications that will alter the course of any stream or river.

IX. g), h), & i) The proposed project does not include the construction of any housing and would not place housing within a 100-year flood hazard area. The Carson Facility is not located within a 100-year flood hazard area so the proposed project would not impede or redirect 100-year flood flows. The proposed project is not located within a flood zone and would not expose people or property to any known water-related hazards. According to the City of Carson General Plan, the City is not subject to inundation associated with dam or levee failure. The extent of the 100-year flood zone is entirely limited to the Dominguez Channel. While the Dominguez Channel runs adjacent to the Carson Facility's southwestern border, as stated above, the proposed project is not expected to have a significant impact on the existing storm water management system at the facility and will therefore not have an impact on, or be impacted by, the 100-year flood zone.

IX. j) According to the City of Carson General Plan, the threat to the City from tsunami is negligible due to the distance from the ocean. There are no large bodies of water within the City, and therefore there are no potential impacts to the project site from seiche. The Carson Facility is not in an area subject to mudflows.

Based upon these considerations, potential impacts on water supply during construction activities for the proposed project may be significant and will therefore be evaluated in the Draft EIR.

		Potentially Significant Impact	Less Than Significant Impact	No Impact
X.	**LAND USE AND PLANNING.** Would the project:			
a)	Physically divide an established community?	☐	☐	☑
b)	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☑	☐
c)	Conflict with any applicable habitat conservation or natural community conservation plan?	☐	☐	☑

Significance Criteria
Land use and planning impacts will be considered significant if the project conflicts with the land use and zoning designations established by local jurisdictions.

Discussion
X. a) The proposed project will be located entirely within the existing Shell Carson Facility, and will not physically divide any community.

X. b) The proposed project is consistent with the land use designations and zoning in the City of Carson and for the Carson Facility. The Carson Facility is zoned Manufacturing, Heavy (MH), and the City of Carson General Plan has the site divided into three land use designations: Heavy Industrial (HI), Business Park (BP), and Light Industrial (LI). The proposed project will occur in portions of the facility that are designated HI. Therefore, the proposed project will be consistent with the current zoning and land use plan.

The Carson Facility currently operates under a Conditional Use Permit (CUP) granted by the City of Carson that regulates the truck traffic associated with the two existing loading lanes. The CUP limits truck trips to a maximum of 180 trucks per individual day and to a maximum monthly average of 150 truck trips per day. The proposed increase in ethanol loading to a total of 52,500 bbl/day is expected to increase both the maximum number of truck trips per individual day and the maximum monthly average truck trips per day to 276 truck trips per day (52,500 bbl/day / 190 barrels/truck = 276 trucks/day). A modification will be required to the CUP to allow for the increased truck traffic associated with the proposed project.

X. c) There are no habitat conservation plans or natural community conservation plans that are applicable to the Carson Facility or the proposed project. Therefore, the proposed project is not expected to conflict with any conservation plans.

Based upon these considerations, the impact of the proposed project on land use and planning is expected to be less than significant and will not be further addressed in the Draft EIR.

		Potentially Significant Impact	Less Than Significant Impact	No Impact
XI.	**MINERAL RESOURCES.** Would the project:			
a)	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☑
b)	Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☑

Significance Criteria
Project-related impacts on mineral resources will be considered significant if any of the following conditions are met:

- The project would result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.
- The proposed project results in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

Discussion
XI. a) & b) The proposed project will take place entirely at the existing Carson Facility, a heavy industrial site. There are no mineral resources or mineral resource extraction operations at the Carson Facility.

There are no provisions in the proposed project that would result in the loss of availability of a known mineral resource of value to the region and the residents of the state such as aggregate, coal, clay, shale, et cetera, or of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

Based upon these considerations, impacts to mineral resources are not expected from the construction and operation of the proposed project and will not be further addressed in the Draft EIR.

		Potentially Significant Impact	Less Than Significant Impact	No Impact
XII.	**NOISE.** Would the project result in:			
a)	Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☑	☐	☐
b)	Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☑	☐	☐
c)	A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☑	☐	☐
d)	A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☑	☐	☐
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☑
f)	For a project within the vicinity of a private airship, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☑

Significance Criteria

Impacts on noise will be considered significant if:

- Construction noise levels exceed the City of Carson's noise ordinance or, if the noise threshold is currently exceeded, project noise sources increase ambient noise levels by more than three decibels (dBA) at the site boundary. Construction noise levels will be considered significant if they exceed federal Occupational Safety and Health Administration (OSHA) noise standards for workers.
- The proposed project operational noise levels exceed any of the local noise ordinances at the site boundary or, if the noise threshold is currently exceeded, project noise sources increase ambient noise levels by more than three dBA at the site boundary.

Discussion

XII. a), b), c) & d) The proposed project will take place at the Carson Facility, an existing heavy industrial facility. The existing noise environment at the proposed project site is typically dominated by noise from existing equipment on-site, vehicular traffic, and trucks currently entering and exiting the facility premises. Construction activities associated with implementing the proposed project may generate some noise associated with the use of construction equipment and construction-related traffic. Operation of the proposed project could cause noise associated with the new loading rack operations, as well as increased truck traffic accessing the site. Exposure of persons to or generation of excessive noise levels will be assessed in the Draft EIR and compared with standards established in the City of Carson noise ordinance.

XII. e) & f) The proposed project is not located within an airport land use plan or within the vicinity of a private air strip. Therefore, the proposed project will not expose people residing or working in the project area to excessive noise levels caused by airport or aircraft activities.

Based upon these considerations, noise impacts associated with the construction and operation of the proposed project have the potential to be significant and will therefore be further evaluated in the Draft EIR.

		Potentially Significant Impact	Less Than Significant Impact	No Impact
XIII. POPULATION AND HOUSING. Would the project:				
a)	Induce substantial growth in an area either directly (for example, by proposing new homes and businesses) or indirectly (e.g. through extension of roads or other infrastructure)?	☐	☐	☑
b)	Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☑
c)	Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☑

Significance Criteria

The impacts of the proposed project on population and housing will be considered significant if the following criteria are exceeded:

- The demand for temporary or permanent housing exceeds the existing supply.

- The proposed project produces additional population, housing or employment inconsistent with adopted plans either in terms of overall amount or location.

Discussion

XIII. a), b) & c) At the peak of construction for the proposed project, approximately 165 temporary construction jobs will be created by the proposed project. Because of the large size of the construction work force available in the southern California area, all 165 temporary construction jobs are expected to be filled from the existing regional labor pool. Once construction is completed, no additional staff is expected to be needed at the Carson Facility for long-term operation of the proposed project. Thus, the proposed project will not induce substantial growth either directly or indirectly.

Because the proposed project will occur within an existing facility located in a highly urbanized area, no additional housing will be necessary to accommodate the labor force needed during construction and, further, no existing housing will be displaced. Substantial housing growth in the area will not occur as a result of the proposed project. Therefore, no impacts are expected to result from the proposed project.

Based upon these considerations, no significant impacts on population and housing are expected as a result of the proposed project and as such, these topics will not be discussed further in the Draft EIR.

	Potentially Significant Impact	Less Than Significant Impact	No Impact
XIV. PUBLIC SERVICES. Would the proposal result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:			
a) Fire protection?	☐	☐	☑
b) Police protection?	☐	☐	☑
c) Schools?	☐	☐	☑
d) Parks?	☐	☐	☑

	Potentially Significant Impact	Less Than Significant Impact	No Impact
e) Other public facilities?	☐	☐	☑

Significance Criteria

Impacts on public services will be considered significant if the project results in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response time or other performance objectives.

Discussion

XIV. a) The Carson Facility will continue to be served by the Los Angeles County Fire Department. The Fire Department has indicated that it has sufficient resource capacity to handle the minimal increase in potential fire threat associated with the proposed project (Moreno, 2010), and therefore no additional fire protection facilities will be required.

XIV. b) The Carson Facility is a secured-access facility and a 24-hour security force is maintained and will continue to be maintained at the site in the foreseeable future. Entry and exit of the construction work force would be monitored by the existing security force, so there is expected to be no need for new or expanded police protection during construction. Because the proposed project will not change staffing at the Carson Facility or substantially expand the existing facilities within the Carson Facility, there is expected to be no need for new or expanded police protection during operation of the proposed project.

XIV. c), d) & e) Construction activities for the proposed project at the Carson Facility will not involve the relocation of individuals, impact housing or change the distribution of the population, and an increase in the number of permanent workers is not required for operation of the proposed project. Therefore, the proposed project would not affect the maintenance of public facilities, nor would it create an increase in demand for public services or facilities.

Based upon these considerations, no significant impacts on public services are expected as a result of the proposed project. Therefore, public services will not be further addressed in the Draft EIR.

	Potentially Significant Impact	Less Than Significant Impact	No Impact

XV. RECREATION.

		Potentially Significant Impact	Less Than Significant Impact	No Impact
a)	Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☑
b)	Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☑

Significance Criteria
The impacts to recreation will be considered significant if:

- The project results in an increased demand for neighborhood or regional parks or other recreational facilities.
- The project adversely affects existing recreational opportunities.

Discussion
XV. a) & b) There will be no changes in population size or densities resulting from the proposed project, and, thus, implementation of the proposed project will not cause an increase in the use of existing neighborhood and regional parks or other recreational facilities. Further, the proposed project will be located at an established industrial facility and will have no effect on existing nearby parks or other recreational facilities. The proposed project also will not require the construction or expansion of recreational facilities and, thus, will not have an adverse physical effect on the environment.

Based upon these considerations, no significant impacts on recreation are expected from the proposed project. Therefore, impacts of the proposed project on recreation will not be addressed in the Draft EIR.

		Potentially Significant Impact	Less Than Significant Impact	No Impact
XVI.	**SOLID/HAZARDOUS WASTE.** Would the project:			
a)	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☑	☐

	Potentially Significant Impact	Less Than Significant Impact	No Impact
b) Comply with federal, state, and local statutes and regulations related to solid and hazardous waste?	☐	☐	☑

Significance Criteria

The proposed project impacts on solid and hazardous waste will be considered significant if the following occur:

– The generation and disposal of hazardous and non-hazardous waste exceeds the capacity of designated landfills.

Discussion

XVI. a) Construction activities associated with the proposed project will increase the amount of solid/hazardous waste generated and disposed. Approximately 13,000 cubic yards of soil are expected to be excavated during construction, primarily for construction of foundations for the proposed new gasoline storage tank. Given the heavily industrialized nature of the Carson Facility and the fact that refining and petroleum storage/distribution activities have been conducted at the site for a number of years, some or all of this excavated soil may be contaminated and classified as a hazardous waste, which would require disposal at a hazardous waste facility. If contaminated soils are encountered during the project construction, the soils would be removed for proper disposal in accordance with SCAQMD's Rule 1166 - Volatile Organic Compound Emissions from Decontamination of Soil, and requirements of other agencies such as the Regional Water Quality Control Board. Additionally, construction activities are also expected to generate approximately 120 cubic yards of construction debris, 400 cubic yards of used copper slag and steel abrasive blasting media used for preparing the storage tanks converted to ethanol service and the new gasoline storage tank for painting, and 150 gallons of residual coatings and coating thinner. The construction debris is expected to be non-hazardous and will be recycled to the extent practical. If they are not able to be recycled, approximately 120 cubic yards of this material would require disposal at a non-hazardous waste facility. The used abrasive blasting media and residual coatings and coating thinner may or may not be hazardous, and the classification of these wastes will be determined prior to disposal. If the excavated soil, abrasive blasting media, and residual coatings and coating thinners are all determined to be hazardous, approximately 13,600 cubic yards of hazardous waste will require disposal at a hazardous waste facility. If they are not determined to be hazardous, they would be disposed at a non-hazardous waste facility.

Once the new gasoline storage tank is constructed and in service, the tank will be required to be emptied and inspected every 10 to 20 years, in accordance with industry standards. Approximately 370 cubic yards of hydrocarbon contaminated solids that have settled to the bottom of the tank will need to be removed when the storage tank is emptied prior to each inspection This waste requires disposal at a hazardous waste facility.

The Los Angeles County Sanitation District maintains three active Class III landfills that would likely receive waste from the Carson Facility and can handle a total of approximately 20,000 tons per day of non-hazardous solid waste. These landfills include Puente Hills Landfill, Scholl Canyon

Landfill, and Calabasas Landfill. Projected closure dates for the three landfills range from 2013 at Puente Hills Landfill to 2028 at Calabasas. Permitted daily capacity ranges from 3,400 tons per day at Scholl Canyon to 13,200 tons per day at Puente Hills (CIWMB, 2009). The combined capacity of these three landfills exceeds the anticipated amounts of non-hazardous waste that may be generated during construction of the proposed project.

There are two Class I landfills in California that are approved to accept hazardous wastes. Chemical Waste Management Corporation in Kettleman City, California is a treatment, storage, and disposal facility that has a permitted capacity of approximately 10.7 million cubic yards (CIWMB, 2009). Its expected closure date is currently unknown. Clean Harbors operates a Class I landfill in Buttonwillow, California that has a permitted capacity of 14.3 million cubic yards and an expected closure date of 2040 (CIWMB). The combined capacity of these two facilities exceeds the anticipated amounts of hazardous waste that may be generated during construction and operation of the proposed project.

XVI. b) The Carson Facility currently complies with all applicable federal, state, and local regulations related to solid and hazardous wastes. The proposed project is not expected to interfere in any fashion with the continual compliance with applicable regulations.

Because local landfills can accommodate non-hazardous waste generated by the proposed project and state landfills can accommodate hazardous wastes from the proposed project, no significant impacts on solid/hazardous waste are expected from the proposed project. Therefore, solid/hazardous wastes will not be addressed in the Draft EIR.

		Potentially Significant Impact	Less Than Significant Impact	No Impact
XVII.	**TRANSPORTATION/TRAFFIC.** Would the project:			
a)	Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☑	☐	☐
b)	Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☑	☐	☐

		Potentially Significant Impact	Less Than Significant Impact	No Impact
c)	Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☑
d)	Substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?	☐	☐	☑
e)	Result in inadequate emergency access?	☐	☐	☑
f)	Result in inadequate parking capacity?	☐	☑	☐
g)	Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g. bus turnouts, bicycle racks)?	☐	☐	☑

Significance Criteria

The impacts on transportation/traffic will be considered significant if any of the following criteria apply:

- Peak period levels on major arterials are disrupted to a point where level of service (LOS) is reduced to D, E or F for more than one month.
- An intersection's volume to capacity ratio increase by 0.02 (two percent) or more when the LOS is already D, E or F.
- A major roadway is closed to all through traffic, and no alternate route is available.
- There is an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system.
- The demand for parking facilities is substantially increased.
- Water borne, rail car or air traffic is substantially altered.
- Traffic hazards to motor vehicles, bicyclists or pedestrians are substantially increased.

Discussion

XVII. a) & b) Construction activities resulting from implementing the proposed project will generate a temporary increase in traffic in the vicinity of the Carson Facility associated with construction workers, construction equipment, and the delivery of construction materials. The proposed project is expected to require up to about 185 workers. Therefore, traffic impacts associated with the proposed project are potentially significant and will be addressed in the Draft EIR.

The proposed project will not increase operational phase employment at the Carson Facility or change the level of materials deliveries during operation, but the increase in ethanol loading is expected to lead to approximately 118 additional trucks per day delivering ethanol from the Carson Facility. This additional truck traffic potentially would create or increase congestion at intersections or increase the volume-to-capacity ratio on roadways in the project vicinity, and lead

to a change in the level of service at intersections in the vicinity of the project. Potential impacts associated with additional truck traffic will be addressed in the Draft EIR.

XVII. c) The proposed project does not require the transport of materials to or from the Carson Facility via air traffic. Therefore, the proposed project is not expected to result in a change in air traffic patterns.

XVII. d) The proposed project will occur at the Carson Facility, and existing ongoing operations of the Carson Facility are consistent with surrounding land uses. The proposed project does not involve construction of roads or use of incompatible equipment on roads (e.g., farm equipment). Therefore, no increased hazards due to a design feature or incompatible use is expected.

XVII. e) The proposed project is not expected to result in inadequate emergency access at or adjacent to the Carson Facility (see discussion under item VIII. g). The exits, entrances, and emergency access gates to the Carson Facility will remain unchanged during construction and operation of the proposed project.

XVII. f) The Carson Facility has sufficient on-site parking to accommodate the increased vehicles during project construction. No additional parking will be needed after construction because the work force at the Carson Facility is not expected to increase as a result of the proposed project.

XVII. g) Construction and operation of the proposed project are not expected to conflict with policies supporting alternative transportation, as the project is not expected to impact alternative transportation modes (e.g., bicycles or buses).

Based upon these considerations, impacts to traffic and transportation from the proposed project may be significant and will be further analyzed in the Draft EIR.

		Potentially Significant Impact	Less Than Significant Impact	No Impact
XVIII.	**MANDATORY FINDINGS OF SIGNIFICANCE.**			
a)	Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☑	☐	☐

		Potentially Significant Impact	Less Than Significant Impact	No Impact
b)	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)	☑	☐	☐
c)	Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☑	☐	☐

XVIII. a) As discussed in the biological resources section, the proposed project may have adverse impacts on special-status animal species. These impacts will be addressed in the Draft EIR.

XVIII. b) The proposed project may cause cumulative impacts depending on other projects in the area that are likely to occur concurrently with or subsequent to the proposed project. The Draft EIR will evaluate potential cumulative impacts for project-specific impacts that are determined to be significant.

XVIII. c) The proposed project may cause adverse effects on human beings. Air quality, hazards and hazardous materials, hydrology/water quality, noise, and transportation/traffic may be adversely affected as a result of the proposed project. These environmental issues will be evaluated in the Draft EIR.

REFERENCES

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ACRONYMS

ABBREVIATION	DESCRIPTION
AERP	Alternative emissions reduction plan
AQMP	Air Quality Management Plan
ASTM	American Society of Testing and Materials
BACT	Best Available Control Technology
bbl/day	barrels per day
BP	Business Park
CARB	California Air Resources Board
CARBOB	California reformulated gasoline blendstock for oxygenate blending
CDFG	California Department of Fish & Game
CEQA	California Environmental Quality Act
cfm	cubic feet per minute
CIWMB	California Integrated Waste Management Board
CO	carbon monoxide
CUP	Conditional Use Permit
CUPA	Certified Unified Program Agency
dBA	decibels (A-weighted)
E10	Gasoline containing 10 percent ethanol by volume
EIR	Environmental Impact Report
ERCs	emission reduction credits
ERPG	Emergency Response Planning Guideline
GHGs	greenhouse gases
HMBP	Hazardous Material Business Plan
HI	Heavy Industrial
lbs/day	pounds per day
kW	kilowatts
LACSD	Los Angeles County Sanitation District
LI	Light Industrial
LOS	level of service
MBTA	Migratory Bird Treaty Act
MH	Manufacturing, Heavy
MMBtu	million British thermal units
MTBE	methyl tertiary butyl ether
NOP/IS	Notice of Preparation and Initial Study
NO_2	nitrogen dioxide
NOx	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
OSHA	Occupational Safety and Health Administration

PM10	particulate matter less than 10 microns in diameter
PM2.5	particulate matter less than 2.5 microns in diameter
ppm	parts per million
ppmw	parts per million by weight
RFG	Reformulated Gasoline
RVP	Reid vapor pressure
RWQCB	Regional Water Quality Control Board
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SOx	sulfur oxides
SPCC	Spill Prevention, Control and Countermeasure
TACs	Toxic air contaminants
VMT	vehicle-miles-traveled
VOC	volatile organic compounds
$\mu g/m^3$	micrograms per cubic meter