KINDER MORGAN
CARSON ETHANOL TANK PROJECT

Draft
NEGATIVE DECLARATION

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ACRONYMS AND ABBREVIATIONS

AQMP	Air Quality Management Plan
AST	Above-ground storage tank
BACT	Best Available Control Technology
BMPs	Best Management Practices
CAPCOA	California Air Pollution Control Officers Association
CAO	Cleanup and Abatement Order
CCR	California Code of Regulations
CDFG	California Department of Fish and Game
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CH_4	Methane
CO	Carbon monoxide
CO_2	Carbon dioxide
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CUP	Conditional Use Permit
dB	A decibel
dBA	An A weighted decibel
DTSC	Department of Toxic Substances Control
EIR	Environmental Impact Report
ERPG	Emergency Response Planning Guidelines
GHG	Greenhouse gases
HFCs	Haloalkanes
KM	Kinder Morgan Tank Storage Terminals LLC, a subsidiary of Kinder Morgan Energy Partners, LLP
LOS	Level of service
LARWQCB	Los Angeles Regional Water Quality Control Board
MTBE	Methyl tertiary-butyl ether
ND	Negative Declaration
NFPA	National Fire Protection Association
NO_2	Nitrogen dioxide
NOx	Oxides of Nitrogen
NPDES	National Pollutant Discharge Elimination System

OSHA	Occupational Safety and Health Administration
PFCs	Perfluorocarbons
PM2.5	Particulate matter less than 2.5 microns in size
PM10	Particulate matter less than 10 microns in size
POLA	Port of Los Angeles
PTC	Permit to Construct
RAP	Remedial Action Plan
RCRA	Resource Conservation and Recovery Act
RECLAIM	Regional Clean Air Incentives Market
SCAQMD	South Coast Air Quality Management District
SF_6	Sulfur hexafluoride
SO_2	Sulfur dioxide
SOx	Sulfur oxide
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
UBC	Uniform Building Code
USEPA	United States Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
VOC	Volatile Organic Compounds

INTRODUCTION

Significant changes have been made in gasoline blends over the past number of years. Clean burning gasolines formerly used methyl tertiary-butyl ether (MTBE), a component blended into the fuel at the refinery, as an oxygenate to enhance combustion. When MTBE was phased out due to clean water concerns, the industry moved to using relatively low levels of ethanol as the favored oxygenate required in cleaner burning gasolines. Ethanol is not a refinery blended component.

New regulations on both the federal and state level require and/or promote the increased use of ethanol in gasoline blends. The Federal Renewable Fuels Standard program requires increasing the use of renewable fuels every year through 2012 when 7.5 billion gallons of renewable fuel must be blended into gasoline nationwide. In California, actions taken by the California Air Resources Board (CARB) lead refiners to change their formulation which will require a 75% increase of ethanol use over current formulations. The new "California Procedures for Evaluating Alternative Specifications for Phase 3 Reformulated Gasoline Using the California Predictive Model" is required beginning December 31, 2009.

Kinder Morgan Tank Storage Terminals LLC, a subsidiary of Kinder Morgan Energy Partners, LLP (KM) proposes to construct a 60,000 barrel above-ground storage tank (AST) at the Carson Terminal that will be dedicated to ethanol, to alleviate ethanol storage constraints and meet the state's December 31, 2009 regulatory mandate.

The steel 60,000 barrel AST will be approximately 100 feet in diameter and 50 feet high, and designed and constructed consistent with the existing tanks at the KM Carson Terminal. The proposed project will also include piping and ancillary equipment. The KM Carson Terminal has been a tank farm in the City of Carson for more than 70 years. The ethanol will be transported to the facility via pipeline and ultimately blended into gasoline that goes to market from the facility. No increase in truck traffic or passenger/commute trips to/from the facility is proposed as part of the proposed project.

REGULATORY AUTHORITY

The California Environmental Quality Act (CEQA), Public Resources Code §21000 et seq., requires that the potential environmental impacts of proposed projects, initiated by, funded by, or requiring discretionary approvals from state or local government agencies, be evaluated and that feasible methods to reduce or avoid identified significant adverse environmental impacts of these projects be identified.

The proposed project is a "project' as defined by CEQA Guidelines §15378 and California Public Resources Code §21065. The City of Carson is lead agency for this project and has prepared this Negative Declaration (ND) with no significant adverse environmental impacts pursuant to CEQA.

An environmental impact is defined as an impact to the physical conditions that exist within the area which would be affected by a proposed project, including land, air, water, minerals, flora, fauna, noise, or objects of historic significance. CEQA requires that potentially significant adverse environmental impacts of proposed projects be evaluated, and that feasible methods to reduce or avoid these significant adverse environmental impacts be implemented. To fulfill the

purpose and intent of CEQA, the City of Carson has prepared this ND to evaluate the possibility of any potential significant adverse environmental impacts associated with the construction of one 60,000 barrel AST. The ND is a public disclosure document intended to: (a) provide the lead agency, responsible agencies, decision makers and the general public with information on the environmental effects of the proposed project; and (b) be used as a tool by decision makers to facilitate decision making on the proposed project.

The city's analysis shows that the proposed project will not have a significant adverse effect on the environment. Therefore, no alternatives or mitigation measures are required to be included in this ND to avoid or reduce any significant effects on the environment. Chapter 2 does, however; include best management practices (BMPs) that have been incorporated into the project for some topic areas. The analysis in Chapter 2 supports the conclusion of no significant adverse environmental impacts.

PROJECT LOCATION AND SURROUNDING LAND USES

The proposed project is located at the existing KM Morgan Carson Terminal facility, located at 2000 E. Sepulveda Boulevard, in the City of Carson, County of Los Angeles, California. (See Figure 1 - Regional Location Map, and Figure 2 - Vicinity Map.) The facility is operated by Kinder Morgan Tank Storage Terminals LLC, a subsidiary of Kinder Morgan Energy Partners, L.L. P. The Carson Terminal is a bulk liquid facility with responsibility for the receipt, storage, and shipment of petroleum and petroleum products, such as gasoline, diesel fuel, jet fuel, gasoline blending components, crude oils, naphthas, and heavy gas oils. The terminal receives most of its products by pipeline. Products are delivered to customers by pipeline and tanker truck. The facility includes approximately 62 ASTs, ranging in size from 285 to 178,000 barrels. All tanks are surrounded by berms and secondary containment. The terminal operates 24 hours per day, 365 days per year, with a total staff of 55 people. (See Figure 3 – Site Plan-Existing Conditions)

The entrance to the KM Carson Terminal is located at the southeast corner of Alameda Street and Sepulveda Boulevard. The facility is located within a designated heavy industrial area, surrounded by the following land uses:

North:	Air Products and BP Refinery
Northwest:	BP Refinery
West:	Conoco Phillips Refinery (formerly Tosco Carson Refinery)
South:	Equilon Refinery
Southwest:	BNSF Intermodal Facility
East:	Dominguez Channel, Valero Refinery, Port of Los Angeles (POLA) Intermodal Container Transfer Facility.

The City of Carson is in Southern California, about 16 miles south of downtown Los Angeles, in the South Bay region. Carson is bordered by the City of Long Beach on the east, and the City of Torrance on the west. The Los Angeles harbor is a few miles south of the City of Carson; and the Pacific Ocean is approximately six miles to the west.

PROJECT DESCRIPTION

The proposed project involves the construction of one steel above-ground 60,000 barrel AST. The AST will have an internal floating roof, and be approximately 100 feet in diameter, and 50 feet high. This AST will be a dedicated tank for the storage of ethanol, and be located generally in the northern portion (middle section) of the existing KM Carson Terminal. The AST will be located within an approximate one acre footprint between two existing 178,000 barrel ASTs, currently an undeveloped dirt area bermed for use as secondary containment. The proposed project will also include piping and ancillary equipment. The piping will be the addition of two new lines (8" and 12"), from the new tank to the existing piping adjacent to the site. The ancillary equipment will be the replacement of two existing old electric pumps with two new electric pumps at the loading rack (both old and new pumps are 100 horsepower). No relocation of existing piping or equipment is required. The construction laydown area will be included within the approximate one acre footprint. (See Figure 4 - Site Plan - Proposed Project, Figure 5 – New 60,000 Barrel Tank Elevation Drawing, and Figure 6 - Site Photos-Existing Conditions).

The new 60,000 barrel AST would be designed with the following features:

- A foundation in a location with existing secondary containment and diked/bermed walls;
- Tank vapor seals designed to meet all South Coast Air Quality Management District (SCAQMD) requirements;
- Fire protection systems (and the AST will be placed in an area with existing fire lanes);
- Leak detection and cathodic protection; and
- Vapor recovery systems.

The goal of the proposed project is to respond to state and federal fuel specification regulations that have mandated an increase in the use of ethanol as an oxygenate in fuels by December 31, 2009. In order to avoid operational constraints due to storage limitations, KM must accommodate this mandate and provide additional ethanol storage at its tank farm to serve its customers. The product will be delivered to the facility via pipeline. Ethanol will be blended with gasoline being transported to market using existing infrastructure. The proposed project will not generate additional truck trips once operational. In addition, since the proposed project will not require the hiring of additional employees at the KM Carson Terminal, no increase in passenger/commute trips will be generated from the project once operational.

PROJECT SCHEDULE

The proposed project is scheduled to begin construction in March 2009, last 10 months, and be complete by December 2009. Construction will occur in five phases: (1) minor grading and site preparation; (2) pouring of foundation; (3) delivery of materials; (4) tank erection; and (5)

electrical and piping installation. The project will be considered complete and operational by December 31, 2009.

REQUIRED PERMITS AND APPROVALS

The proposed project will require building, grading and electrical permits for construction activities from the City of Carson. The 60,000 barrel AST will also require a Permit to Construct (PTC) from the South Coast Air Quality Management District (SCAQMD).

In addition, construction activities will require the preparation of a Stormwater Pollution Prevention Plan (SWPPP) under the State Water Resource Control Board (SWRCB), General Permit.

HOW TO COMMENT ON THE NEGATIVE DECLARATION

The City of Carson encourages public comments during the CEQA environmental review process. Comments on the environmental topic areas evaluated in the ND should be provided in writing to:

John F. Signo, AICP
Senior Planner
City of Carson
701 East Carson Street
Carson, CA 90745

Comments should be received by **5:00 P.M.** at the close of the 30-day public comment period.

CHECKLIST OVERVIEW

The environmental checklist provides a standard evaluation tool to identify and evaluate a project's potential adverse environmental impacts.

GENERAL INFORMATION

Project Title:	KM Carson Ethanol Tank Project
Lead Agency:	City of Carson 701 E. Carson Street Carson, CA 90745 http://ci.carson.ca.us/default.asp
Contact Person:	John F. Signo, AICP, Senior Planner, (310) 952-1700 x1327 jsigno@carson.ca.us
Project Applicant:	Kinder Morgan Tank Storage Terminals LLC, a subsidiary of Energy Partners, LLP. 1100 Town and Country road Orange, CA 92868 Allan Campbell, Director, Project Permitting (714) 560-4967 allan_campbell@kindermorgan.com
General Plan Designation:	Heavy Industrial
Zoning:	MH – Heavy Manufacturing
Description of Project:	The proposed project involves the construction of one 60,000 barrel AST with an internal floating roof, approximately 100 feet in diameter, and 50 feet high. This AST will be a dedicated tank for the storage of ethanol, and located in the northern portion (middle section) of the existing KM Carson Terminal which has been in operation as a tank farm for over 70 years.
Surrounding Land Uses and Setting:	Heavy Industrial: North: Air Products and BP Refinery Northwest: BP Refinery West: Conoco Phillips Refinery (formerly Tosco Carson Refinery) South: Equilon Refinery Southwest: BNSF Intermodal Facility East: Dominguez Channel, Valero Refinery, POLA Intermodal Container Transfer Facility.
Other Public Agencies whose approval is required:	SCAQMD

POTENTIALLY SIGNIFICANT IMPACT AREAS

The following environmental impact areas have been evaluated to determine their potential to be affected by the proposed project. As indicated by the checklist on the following pages, environmental topics marked with a "✓" 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	☐ Hazards/Hazardous Materials	☐ Population/Housing
☐ Agricultural Resources	☐ Hydrology/Water Quality	☐ Public Services
☐ Air Quality	☐ Land Use/Planning	☐ Recreation
☐ Biological Resources	☐ Mineral Resources	☐ Utilities/Service Systems
☐ Cultural Resources	☐ Noise	☐ Transportation/Traffic
☐ Geology/Soils	☐ Mandatory Findings of Significance	

DETERMINATION

On the basis of this initial evaluation:

☑ I find that the proposed project COULD NOT have a significant effect on the environment, and 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 a significant effect 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 is required.

Date:_____ **Signature:** _____

John F. Signo, AICP
Senior Planner
City of Carson

ENVIRONMENTAL CHECKLIST AND DISCUSSION

		Potentially Significant Impact	Less Than Significant Impact with Mitigation	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?	☐	☐	☐	☑

AESTHETICS DISCUSSION:

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.

Environmental Setting and Impacts

a) The proposed project involves the construction of one steel 60,000 barrel AST for the purpose of storing ethanol within the boundaries of the existing KM Carson Terminal. The AST will be an internal floating roof tank, approximately 100 feet in diameter, and approximately 50 feet high. The affected facility is located within a heavy industrial area, devoid of scenic vistas. Views of scenic vistas are generally described in two ways: panoramic views (visual access to a large geographic area for which the field of view can be wide and extend into the distance) and focal views (visual access to a particular object, scene, setting, or feature of interest). There are no scenic vistas from the project site or the surrounding area. Surrounding land uses consist of refineries and shipping, storage and container facilities. The closest residential land use is over 1.5 miles to the southwest in Wilmington. The closest school is approximately 1.75 miles to the east in Long Beach. Further, the site of the new AST is within the interior of the KM Carson Terminal, and not located immediately adjacent to the perimeter of the

facility. As a result, the new tank, and the construction activities associated with the new tank, would not be visible from off-site land uses. In addition, the KM Carson Terminal perimeter is surrounded by fencing, landscaping and textured cinderblock.

b) & c) The proposed project will be constructed within the interior of an existing facility, within an existing industrial area. The proposed new AST will be consistent with the industrial nature and visual characteristics of surrounding land uses. The proposed project will not require any modifications to the existing facility which would obstruct scenic resources or degrade the existing visual character of the site, including but not limited to, trees, rock outcroppings, or historic buildings. Any site modifications performed in order to comply with the proposed project will be conducted within the boundaries of the existing affected facility. The visual character of the area is expected to remain the same and would not be degraded due to any onsite facility modifications. The project site is a tank farm, and has been used as a tank farm for over 70 years.

d) The proposed project will be constructed during daytime hours, thus eliminating the need for temporary artificial lighting during evening hours. Once operational, additional light or glare would not be created by the proposed project which would adversely affect day or nighttime views since no light generating equipment or fixtures will be installed, or added to the facility.

Conclusion

Based on the above discussion, the proposed project will not have a significant adverse impact on aesthetics. Since no significant adverse impacts are anticipated, no mitigation measures are required.

	Potentially Significant Impact	**Less Than Significant Impact with Mitigation**	**Less Than Significant Impact**	**No Impact**
II. AGRICULTURAL 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?	☐	☐	☐	☑

AGRICULTURAL RESOURCES DISCUSSION:

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.

Environmental Setting and Impacts

a) – c) The proposed project involves the construction of one steel 60,000 barrel AST for the purpose of storing ethanol within the boundaries of the existing KM Carson Terminal. The AST will be an internal floating roof tank, approximately 100 feet in diameter, and approximately 50 feet high. The KM Carson Terminal and surrounding area is devoid of agricultural resources. The area is zoned heavy manufacturing and the land use designation is heavy industrial. The proposed new tank will be located within the boundary of this existing facility and will not require any modifications which would convert any classification of farmland to non-agricultural use or conflict with zoning for agricultural use or a Williamson Act contract. Any site modifications performed in order to comply with the proposed project will be conducted within the boundaries of the existing facility.

Conclusion

Based on the above discussion, the proposed project will not have a significant adverse impact on agricultural resources. Since no significant adverse impacts are anticipated, no mitigation measures are required.

	Potentially Significant Impact	Less Than Significant Impact with Mitigation	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)?	☐	☐	☐	☑

AIR QUALITY DISCUSSION:

It is the responsibility of the South Coast Air Quality Management District (SCAQMD) to ensure that state and federal ambient air quality standards (AAQS) are achieved and maintained in its geographical jurisdiction. Health-based air quality standards have been established by California and by the federal government for the following criteria air pollutants: ozone, carbon monoxide (CO), nitrogen dioxide (NO_2), PM10, PM2.5, sulfur dioxide (SO_2) and lead. Further, California has additional standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility. Attainment of the state and federal ambient air quality standards protect sensitive receptors and the public in general from the adverse effects of criteria pollutants that are known to have adverse human health effects. These standards are established to protect sensitive receptors within a margin of safety from adverse health impacts due to exposure to air pollution.

Significance Criteria

To determine whether or not air quality impacts from adopting and implementing the proposed amendments are significant, potential impacts will be evaluated and compared to the following criteria. If impacts equal or exceed any of the SCAQMD criteria in Table 1, they will be considered significant.

TABLE 1
SCAQMD AIR QUALITY SIGNIFICANCE THRESHOLDS

Mass Daily Thresholds		
Pollutant	**Construction**	**Operation**
Oxides of Nitrogen (NOx)	100 lbs/day	55 lbs/day
Volatile Organic Compound (VOC)	75 lbs/day	55 lbs/day
Particulate Matter less than 10 microns in size (PM10)	150 lbs/day	150 lbs/day
Particulate Matter less than 2.5 microns in size (PM2.5)	55 lbs/day	55 lbs/day
Sulfur Oxide (SOx)	150 lbs/day	150 lbs/day
Carbon Monoxide (CO)	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day
Toxic Air Contaminants and Odor Thresholds		
Toxic Air Contaminants (including carcinogens and non-carcinogens)	Maximum Incremental Cancer Risk $\geq$ 10 in 1 million Hazard Index $\geq$ 1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	
Ambient Air Quality for Criteria Pollutants [(a)]		
NO_2 1-hour average annual average	In attainment; significant if project causes or contributes to an exceedance of the following attainment standards: 0.18 parts per million (state) 0.03 parts per million (federal)	
PM10 24-hour average annual average	10.4 $\mu g/m^3$ (construction) [(b)] & 2.5 ug/m^3 (operation) 1.0 $\mu g/m^3$	
PM2.5 24-hour average	10.4 $\mu g/m^3$ (construction) [(b)] & 2.5 ug/m^3 (operation)	
Sulfate 24-hour average	1 $\mu g/m^3$	
CO 1-hour average 8-hour average	In attainment; significant if project causes or contributes to an exceedance of the following attainment standard: 20 parts per million (state) 9.0 parts per million (state/federal)	

(a) Ambient air quality thresholds for criteria pollutants based on SCAQMD Rule 1303, Table A-2 unless otherwise stated.
(b) Ambient air quality threshold based on SCAQMD Rule 403.
$\mu g/m^3$ = microgram per cubic meter
mg/m^3 = milligram per cubic meter
Source: aqmd.gov (July 2008)

Environmental Setting and Impacts

a) & f) The 2007 SCAQMD Air Quality Management Plan (AQMP) demonstrates that the applicable ambient air quality standards can be achieved within the timeframes required under federal law. Growth projections from local general plans adopted by cities in the SCAQMD are some of the inputs used to develop the AQMP. As indicated in the *Population and Housing*, and *Transportation/Traffic* sections of this ND, the proposed project will not require additional employees or generate additional traffic during operation. Therefore, the proposed project will not cause increases in the growth projections in the City of Carson or surrounding areas. Additionally, the proposed project must comply with applicable SCAQMD requirements and promulgation of future AQMP control measures for new or modified

sources. For example, new emission sources are required to comply with SCAQMD's Regulation XIII – New Source Review and Rule 2005 – New Source Review for RECLAIM, requirements that include the use of BACT, air quality modeling, and emission reduction credit offsets for any emission increases greater than one pound per day. The proposed project must also comply with prohibitory rules, such as SCAQMD Rule 403 – Fugitive Dust.

By meeting these requirements, the proposed project will be consistent with the goals and objectives of the AQMP to improve air quality in the Basin. In addition, standard mitigation measures and best management practices incorporated into construction activities are expected to result in a reduction in criteria and toxic air contaminant emissions. As a result, the proposed project is consistent with the 2007 AQMP and is not expected to diminish an existing air quality rule or a future compliance requirement.

b) The project site is located with the SCAQMD jurisdiction. The SCAQMD maintains ambient air quality monitoring stations throughout the Basin. The closest air quality monitoring station to the project area is the North Long Beach or Los Angeles County Coastal 1 Station. The station monitors the following criteria pollutants: carbon monoxide (CO), ozone (O_3), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), coarse suspended particulate matter (PM_{10}), fine particulate matter ($PM_{2.5}$), lead and sulfates. The ambient air quality data for the past three years (e.g., 2005, 2006 and 2007) is presented in Table 2 below.

TABLE 2
AMBIENT AIR QUALITY MONITORING DATA
LOS ANGELES SOUTH COASTAL 1 AIR QUALITY MONITORING STATION
(North Long Beach)

Pollutant/ Averaging Period	2005			2006			2007		
	Max Conc, ppm ($\mu g/m^3$ for PM)	No. Days Exceeding Federal Standard	No. Days Exceeding State Standard	Max Conc, ppm ($\mu g/m^3$ for PM)	No. Days Exceeding Federal Standard	No. Days Exceeding State Standard	Max Conc, ppm ($\mu g/m^3$ for PM)	No. Days Exceeding Federal Standard	No. Days Exceeding State Standard
CO, 1-hr	4	0	0	4	0	0	3	0	0
CO, 8-hr	3.5	0	0	3.4	0	0	2.6	0	0
O_3, 1-hr	0.091	0	0	0.08	0	0	0.099	0	1
O_3, 8-hr	0.068	0	0	0.058	0	0	0.073	0	1
NO_2, 1-hr	0.14	0	0	0.10	0	0	0.11	0	0
SO_2, 1-hr	0.04	0	0	0.03	0	0	0.11	0	0
SO_2, 24-hr	0.01	0	0	0.010	0	0	0.011	0	0
PM_{10}, 24-hr	66	0	5	78	0	6	75	0	5
$PM_{2.5}$, 24-hr	53.9	0	n/a	59.5	5	n/a	82.9	12	n/a

From the ambient air quality data presented, the pollutants which exceed federal or state AAQS are ozone and particulate matter. Nitrogen dioxide, sulfur dioxide, and carbon monoxide levels in the proposed project area have not exceeded ambient air quality standards in the past three years.

Project-Related Operational Emissions

Operational activities associated with the proposed project would only result in emissions of volatile organic compounds (VOCs). The primary source of emissions is the storage of denatured ethanol in the AST. Fugitive components contribute additional emissions, but are typically much lower than those from the AST. Since the proposed project will receive the denatured ethanol by pipeline and will be distributing it in lieu of an equivalent volume of gasoline, no additional mobile sources of emissions are inherent in this project. The AST was modeled using the preliminary design parameters for volumes, seals, appurtenances, and throughputs. VOC emissions from fugitive components were quantified by

estimating the amount and type of components and multiplying by an appropriate emission factor. Table 3 reflects the results of the analysis of operational emissions for the proposed project.

TABLE 3
OPERATIONAL EMISSIONS

Source	ROG (lbs/day)	CO (lbs/day)	NOX (lbs/day)	SOX (lbs/day)	PM 10 (lbs/day)	PM 2.5 (lbs/day)	CO2 (lbs/day)	CH4 (lbs/day)
Storage and Distribution of Denatured Ethanol in/from AST	3.20	0	0	0	0	0	0	0
Fugitive Components	0.20	0	0	0	0	0	0	0
Totals	3.40	0	0	0	0	0	0	0
Significance Thresholds	55	550	150	55	150	55	NE	NE
Significant?	No	No	No	No	No	No		

*NE = None established.

AST emissions were determined using the USEPA TANKS program version 4.09d.

Fugitive Emission Factors found in the USEPA Protocol for Equipment Leak Emission Estimates.

As shown in Table 3, the air quality impacts associated with the operational phase of the proposed project will not have a significant adverse impact on air quality.

Project-Related Construction Emissions

Construction activities associated with the proposed project would result in emissions of carbon monoxide (CO), particulate matter less than 10 and 2.5 microns in diameter (PM10 and PM 2.5, respectively), VOCs, NOx and SOx. Construction activities include grading and site preparation; pouring of foundation; delivery of materials; tank erection; and electrical and piping installation. The air quality impacts associated with the construction phase of the proposed project will not have a significant adverse impact on air quality. Table 4 reflects the results of the analysis of construction emissions for the proposed project. The detailed air quality analysis (e.g. emissions, assumptions and emission factors) by phase is located in Appendix A.

TABLE 4
CONSTRUCTION EMISSIONS BY PHASE

Phase	ROG (lbs/day)	CO (lbs/day)	NOX (lbs/day)	SOX (lbs/day)	PM 10 (lbs/day)	PM 2.5 (lbs/day)	CO2 (lbs/day)	CH4 (lbs/day)
I	**8.92**	**30.63**	**84.58**	**0.09**	**26.97**	**2.99**	**8190**	**0.79**
II	10.48	42.85	75.84	0.08	5.19	4.63	7435	0.91
III	0.88	7.84	2.84	0.01	0.14	0.13	900	0.07
IV	5.80	22.73	46.71	0.05	15.53	2.11	4700	0.51
V	4.10	17.22	36.46	0.04	1.44	1.29	3910	0.35

The project specifications call for painting of the AST with a paint that does not contain VOCs. As supported by extensive research with architectural coatings by the SCAQMD, there are sufficient industrial coatings formulated with high solids and zero VOCs to accommodate the project. Therefore, no VOC emissions would be expected from the use of architectural coatings during peak construction activities.

Greenhouse gases/Climate Change

Global climate change refers to changes in average climatic conditions on earth as a whole, including temperature, wind patterns, precipitation and storms. Global warming, a related concept, is the observed increase in average temperature of the earth's surface and atmosphere. The six major GHGs identified by the Kyoto Protocol are carbon dioxide (CO2), methane (CH4), nitrous oxide (N20), sulfur hexafluoride (SF6), haloalkanes (HFCs), and perfluorocarbons (PFCs). The GHGs absorb longwave radiant energy reflected by the earth, which warms the atmosphere. GHGs also radiate long wave radiation both upward to space and back down toward the surface of the earth. The downward part of this longwave radiation absorbed by the atmosphere is known as the "greenhouse effect." The potential effects of global climate change may include rising surface temperatures, loss in snow pack, sea level rise, more extreme heat days per year, and more drought years.

CO2 is an odorless, colorless natural greenhouse gas. Natural sources include the following: decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic (human caused) sources of CO2 are from burning coal, oil, natural gas, wood, butane, propane, etc. CH4 is a flammable gas and is the main component of natural gas. N20, also known as laughing gas, is a colorless greenhouse gas. Some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to the atmospheric load of GHGs. HFCs are synthetic man-made chemicals that are used as a substitute for chlorofluorocarbons (whose production was stopped as required by the Montreal Protocol) for automobile air conditioners and refrigerants. The two main sources of PFCs are primary aluminum production and semiconductor manufacture. SF6 is an inorganic, odorless, colorless, nontoxic, nonflammable gas. SF6 is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.

Events and activities, such as the industrial revolution and the increased combustion of fossil fuels (e.g., gasoline, diesel, coal, etc.), have heavily contributed to the increase in atmospheric levels of GHGs.

The analysis of GHGs is a much different analysis than the analysis of criteria pollutants for the following reasons. For criteria pollutants significance thresholds are based on daily emissions because attainment or non-attainment is based on daily exceedances of applicable ambient air quality standards. Further, several ambient air quality standards are based on relatively short-term exposure effects on human health, e.g., one-hour and eight-hour. Since the half-life of CO2 in the atmosphere is approximately 100 years, for example, the effects of GHGs are longer-term, affecting global climate over a relatively long time frame. As a result, the SCAQMD's current position is to evaluate GHG effects over a longer timeframe than a single day. For this project, GHG emissions in the form of CO2 will be generated by off-road equipment and on-road vehicles during the construction phase of the project.

The operational phase of implementing the proposed project would result in no change or increase in CO2 emissions as the operation of the ethanol tank does not generate CO2 emissions.

An increase in GHG emissions of 12 metric tons from the construction phase of the proposed project would be less than significant for the following reasons. Neither the SCAQMD nor any other air regulatory agency in California has established a significance threshold for GHG emissions yet. In the absence of a specific significance threshold, only a qualitative discussion can be presented.

In its CEQA & Climate Change document (January, 2008), the California Air Pollution Control Officers Association (CAPCOA) identifies many potential GHG significance threshold options. The CAPCOA document indicates that establishing quantitative thresholds is a balance between setting the level low

enough to capture a substantial portion of future residential and non-residential development, while also setting a threshold high enough to exclude small development projects that will contribute a relatively small fraction of the cumulative statewide GHG emissions. Two potential significance thresholds were 10,000 metric tons per year and 25,000 metric tons per year. GHG emissions increase from the proposed project during construction would be substantially lower than both of these reporting thresholds.

Finally, another approach to determining significance is to estimate what percentage of the total inventory of GHG emissions are represented by emissions from a single project. If emissions are a relatively small percentage of the total inventory, it is possible that the project will have little or no effect on global climate change. According to available information, the statewide inventory of CO2 equivalent emissions is as follows: 1990 GHG emissions were estimated to equal 427 million metric tons of CO2 equivalent, and 2020 GHG emissions are projected to equal 600 million metric tons of CO2 equivalent, under a business as usual scenario. Interpolating an inventory for the year 2009 (time of construction) results in an estimated inventory of approximately 537 million metric tons of CO2 equivalent. CO2 equivalent emissions of 12 metric tons from the proposed project represents 0.000002 percent of the statewide GHG inventory in 2009. This small percentage of GHG emissions compared to the total projected statewide GHG emissions inventory is another basis for the conclusion that GHG emissions from implementing the proposed project are less than significant.

GHG emissions are considered cumulative impacts, however; the proposed project GHG emissions are below the proposed 10,000 and 25,000 metric tons per year proposed thresholds, and a small percentage of the total statewide GHG inventory for 2009. Therefore, cumulative GHG adverse impacts from the proposed project are not considered significant.

c) As presented above, the proposed project will not result in a significant increase in operational emissions which has the potential to result in cumulative impacts. In addition, the construction emissions from the proposed project are less than significant. Since the project-specific air quality impacts are less than significant, the project is not considered to be cumulatively considerable.

d) & e) The proposed project involves the construction of one steel above-ground 60,000 barrel AST. The AST will be a dedicated tank for the storage of ethanol, and be located generally in the northern portion (middle section) of the existing KM Carson Terminal that has been in operation as a tank farm for over 70 years. The AST will be located within an approximate one acre footprint area between two existing 178,000 barrel ASTs. The KM Carson Terminal is located within a heavy industrial area, with the closest sensitive receptor (residential land use) 1.5 miles to the southwest in Wilmington.

Ethanol, otherwise known as ethyl alcohol, alcohol, is a clear, colorless, flammable oxygenated fuel which will be contained within the AST. Because ethanol is inherently cleaner than gasoline, it emits less hydrocarbons, nitrogen oxides, carbon monoxide and hydrogen. The proposed project is not expected to expose sensitive receptors to any substantial pollutant concentrations or create any objectionable odors affecting a substantial number of people.

Conclusion

Based on the above discussion, the proposed project will not have a significant adverse impact on air quality, and therefore requires no mitigation measures. The following best management practices will, however; be implemented during construction to further reduce emissions during this phase of the project.

AQ-1 Individual truck idling in excess of five consecutive minutes will be prohibited, or what is allowed under Title 13 of the California Code of Regulations §2485 (*CARB's Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling*).

AQ-2 Suspend the use of all construction equipment during first-stage smog alerts.

AQ-3 Use electricity or alternate fuels for on-site mobile equipment instead of diesel equipment to the extent feasible.

AQ-4 Maintain construction equipment by conducting regular tune-ups.

AQ-5 Use electric welders to avoid emissions from gas or diesel welders in portions of the project site where electricity is available.

AQ-6 Diesel-power construction equipment shall use low-sulfur diesel fuel, as defined in SCAQMD Rule 431.2.

AQ-7 During construction grading activities the site will be watered to control fugitive dust.

AQ-8 Suspend all excavating and grading operations when wind speeds (as instantaneous gusts) exceed 25 miles per hour.

		Potentially Significant Impact	Less Than Significant Impact with Mitigation	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)	Conflicting 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?	☐	☐	☐	☑

BIOLOGICAL RESOURCES DISCUSSION:

Significance Criteria

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.

Environmental Setting and Impacts

a) – d) Sensitive plants and animals are those identified as rare or endangered, or that are depleted or declining, as listed by the U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Game (CDFG), and the California Native Plant Society (CNPS).

A 2003 query of the California Natural Diversity Database (CNDDB) for the regional area including the KM Carson Terminal revealed the sensitive plant species Southern tarplant, Brand's phacelia, California orcutt grass, Parish's brittlescale, South coast saltscale, salt marsh bird's beak, prostrate navarretia, Lyon's pentachaeta, and Coast wooly heads, but none were found at the project site during a reconnaissance survey. (Carson Terminal Expansion EIR, September 2003) A subsequent query of the CNDDB for the regional area and reconnaissance survey of the site was performed by a TRC qualified biologist in December 2008. The CNDDB query revealed the sensitive plant species Brand's star phacelia (*Phacelia stellaris*), California orcutt grass (*Orcuttia californica*), coast woolly-heads (*Nemacaulis denudata var. denudata*), Davidson's saltscale (*Atriplex serenana var. davidsonii*), estuary seablite (*Suaeda esteroa*), Lyon's pentachaeta (*Pentachaeta lyonii*), Parish's brittlescale (*Atriplex parishii*), prostrate vernal pool navarretia (*Navarretia prostrata*), salt marsh bird's beak (*Cordylanthus maritimus ssp. maritimus*), south coast saltscale (*Atriplex pacifica*), southern tarplant (*Centromadia parryi ssp. australis*). The reconnaissance survey found the site to be highly disturbed (e.g. barren soil), containing no vegetation or wildlife habitat. As a result, the site itself is of little biological value.

A 2003 query of the CNDDB for the regional area including the KM Carson Terminal revealed the sensitive wildlife species Pacific pocket mouse, California least tern, coastal California gnatcatcher, great blue heron, and Western yellowed-billed cuckoo, but none were found at the project site during a

reconnaissance survey. (Carson Terminal Expansion EIR, September 2003) A subsequent query of the CNDDB for the regional area and reconnaissance survey of the site was performed by a TRC qualified biologist in December 2008. The CNDDB query revealed the sensitive animal species big free-tailed bat (*Nyctinomops macrotis*), pacific pocket mouse (*Perognathus longimembris pacificus*), pocketed free-tail bat (*Nyctinomops femorosaccus*), silver-haired bat (*Lasionycteris noctivagans*), California brown pelican (*Pelecanus occidentalis californicus*), California least tern (*Sternula antillarum browni*), coastal California gnatcatcher (*Polioptila californica californica*), tricolored blackbird (*Agelaius tricolor*), coast (San Diego) horned lizard (*Phrynosoma coronatum* (*blainvillii* population)), Mohave tui chub (*Gila bicolor mohavensis*), monarch butterfly (*Danaus plexippus*), Palos Verdes blue butterfly (*Glaucopsyche lygdamus palosverdesensis*), sandy beach tiger beetle (*Cicindela hirticollis gravida*), western beach tiger beetle (*Cicindela latesignata latesignata*). The survey found the site to be highly disturbed (e.g. barren soil), containing no wildlife or species of concern. As a result, the site itself is of little biological value.

The KM Carson Terminal includes petroleum storage tanks, paved roads, pipelines, rail tracks, and other various structures, which lack the appropriate habitat to support the species identified in the CNDDB. The project site itself is an undeveloped dirt area devoid of any vegetation. The KM Carson Terminal does support two urban vegetative communities – developed and disturbed. Developed areas have been cleared and support little to no native vegetation because of the presence of buildings, structures, landscaping and roads. Disturbed habitats are lands on which the native vegetation has been altered by construction or other land clearing activities. Such habitat found within the KM Carson Terminal includes dirt roads, and the land between storage tanks and other structures. (Carson Terminal Expansion EIR, September 2003)

The project site lacks any federally protected wetlands as defined by §404 of the Clean Water Act, riparian habitat, migratory corridors, and is not within the jurisdiction of the California Coastal Commission.

e) & f) The proposed project does not include any components which would conflict with local policies or ordinances protecting biological resources, or conflict with the provisions of any adopted local, regional, or state conservation plans because it will only affect specific equipment within an existing facility located within an industrial area. Effects outside the boundary of the KM Carson Terminal are not anticipated. Further, the proposed project will not conflict with any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or any other relevant habitat conservation plan, as the proposed project will not require any land use changes which would conflict with any local policies protecting biological resources or habitat conservation plans.

Conclusion

Based on the above discussion, the proposed project will not have a significant adverse impact on biological resources. Since no significant adverse impacts are anticipated, no mitigation measures are required.

		Potentially Significant Impact	Less Than Significant Impact with Mitigation	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, site, or feature?	☐	☐	☐	☑
d)	Disturb any human remains, including those interred outside formal cemeteries?	☐	☐	☐	☑

CULTURAL RESOURCES DISCUSSION:

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.

Environmental Setting and Impacts

a) – c) The proposed project involves the construction of one steel 60,000 barrel AST for the purpose of storing ethanol within the boundaries of the existing KM Carson Terminal in an area previously disturbed. The KM Carson Terminal has been used as a tank farm for over 70 years. A majority of the tanks were first constructed between 1922 and 1924. In 2003 a cultural resources survey was conducted and the survey concluded that the terminal did not appear to meet the significant criteria under CEQA Guidelines section 15064.5. The survey stated that the property, while representative of the early oil industry in southern California, is not associated with events that have made a significant contribution to California's history and cultural heritage; it is not associated with the lives of important persons in our past; it does not embody distinctive characteristics of a type, period, style, region, method of construction, nor does it represent the work of an important individual; nor is it likely to yield information important in prehistory or history. Further, no prehistoric cultural resources were known to exist within the project site. (Carson Terminal Expansion EIR, September 2003)

As a result, the proposed project is not expected to cause a substantial adverse change in the significance of a historical or archaeological resource as defined in §15064.5, or directly/indirectly destroy a unique paleontological resource, site, or feature.

d) The project site has been used as a tank farm for over 70 years. The proposed project will be constructed within the confines of the project site in an area previously disturbed. In addition, there are no formal cemeteries within close proximity to the KM Carson Terminal. It is not expected that the proposed project will disturb any human remains during construction, or once operational.

Conclusion

Based on the above discussion, the proposed project will not have a significant adverse impact on cultural resources. Since no significant adverse impacts are anticipated, no mitigation measures are required.

	Potentially Significant Impact	**Less Than Significant Impact with Mitigation**	**Less Than Significant Impact**	**No Impact**
VI. 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?	☐	☐	☑	☐
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 wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☑

GEOLOGY AND SOILS DISCUSSION:

Significance Criteria

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, and 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.

Environmental Setting and Impacts

a), c) & d) Southern California is an area of known seismic activity. Structures must be designed to comply with the Uniform Building Code (UBC) requirements if they are located in a seismically active area. The City of Carson is responsible for assuring that the proposed project complies with the UBC as part of the issuance of building permits for the foundation under the AST and will conduct inspections during construction to ensure compliance. The UBC is considered to be a standard safeguard against major structural failures and loss of life. The goal of the code is to provide the structural stability that will: (1) resist minor earthquakes without damage; (2) resist moderate earthquakes without structural damage, but with some non-structural damage; and (3) resist major earthquakes without collapse, but with some structural and non-structural damage.

The UBC bases seismic design on minimum lateral seismic forces ("ground shaking"). The UBC requirements operate on the principle that providing appropriate foundations, among other aspects, helps to protect buildings from failure during earthquakes. The basic formulas used for the UBC seismic design require determination of the seismic zone and site coefficient, which represents the foundation condition at the site.

The UBC requirements also consider liquefaction potential and establish stringent requirements for building foundations in areas potentially subject to liquefaction. Thus, any construction-related modifications associated with the proposed project would be required to conform to the UBC and all other applicable state and local codes. Although new equipment may be added to the KM Carson Terminal, the

construction activities to add the new equipment are expected to be relatively minor. In addition, any new structures would conform to UBC requirements. As a result, the proposed project will not alter the exposure of people or property to the risk of loss, injury, or death involving seismic-related activities, including landslides, mudslides, or ground failure.

Subsidence is not anticipated to be a problem since minimal excavation and grading is expected to occur at the KM Carson Terminal. Further, the proposed project does not involve or increase drilling, or removal of underground products (e.g. water, crude oil) that could produce subsidence effects. The KM Carson Terminal is not expected to be prone to landslides or have unique geologic features since this facility is relatively flat and located in an industrial area where such features have already been altered or removed.

b) As previously stated, the KM Carson Terminal is located within a heavy industrial area, on land which has been previously disturbed. There is very little topsoil within this existing facility. Most of the Carson Terminal itself is paved or covered with gravel. The construction site is unpaved dirt located between two existing 178,000 barrel ASTs within a diked/bermed area. The berm separating the two existing ASTs will be removed, the soil (e.g., approximately 6,000 tons) will be reallocated onsite, and a new berm will be constructed around the new 60,000 barrel ethanol tank. No topsoil will be lost from the site, and no soil erosion will occur during construction. The project will be required to develop and implement a stormwater pollution prevention plan (SWPPP) to ensure no sediment leaves the construction site during rain events. As a result, the proposed project will not result in substantial soil erosion or a loss of topsoil.

e) Septic tanks or other similar alternative wastewater disposal systems are typically associated with small residential projects in remote areas. The proposed project does not include any requirements that generate construction of residential projects in remote areas. The proposed project affects a facility in a heavy industrial area. People or property will not be exposed to expansive soils or soils incapable of supporting the use of septic tanks or alternative wastewater disposal systems. Any facility modifications implemented to support the proposed project would occur at existing facilities where sewerage systems are already connected to local or regional wastewater systems.

Conclusion

Based on the above discussion, the proposed project will not have a significant adverse impact on geology and soils. Since no significant adverse impacts are anticipated, no mitigation measures are required.

	Potentially Significant Impact	**Less Than Significant Impact with Mitigation**	**Less Than Significant Impact**	**No Impact**
VII. 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 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?	☐	☐	☐	☑

HAZARDS AND HAZARDOUS MATERIALS:

Significance Criteria

The 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.

Environmental Setting and Impacts

The proposed project involves the construction of one steel 60,000 barrel AST for the purpose of storing ethanol within the boundaries of the existing KM Carson Terminal. The AST will be an internal floating roof tank, approximately 100 feet in diameter, and approximately 50 feet high. Ethanol, otherwise known as ethyl alcohol, alcohol, is a clear, colorless, flammable oxygenated fuel. Ethanol is blended with gasoline to extend fuel supplies. These fuel formulations are approved by all automakers and the EPA. Ethanol is also used to increase octane and improve the emissions quality of gasoline as required by the Clean Air Act Amendments of 1990 in carbon monoxide and ozone nonattainment areas. In addition, ethanol is used as an alternative fuel to meet Clean Air Act and Energy Policy Act crude oil displacement goals.

As a result of the 1999 Governor's Executive Order (D-5-99) to phase out MTBE, ethanol has become the substitute oxygenate to meet federal air quality requirements. Ethanol is the only oxygenate approved for use in California. Adding oxygen to fuel means that it burns more completely and cleanly. The use of ethanol as a fuel additive improves the environment because its high level of oxygen increases the efficiency of the combustion process, resulting in lower emissions and higher air quality. It has been used as a blending component in gasoline to increase octane levels for engine performance.

a) & b) The proposed project will add one 60,000 barrel AST to the KM Carson Terminal dedicated to storing the product ethanol. Ethanol will be accepted by the KM Carson Terminal via pipeline, and ultimately blended into gasoline that goes to market from the facility. No additional truck transportation of ethanol or gasoline shipments is proposed as part of the project.

The KM Carson Terminal has a variety of existing safety programs addressing hazardous materials storage and use, emergency response, employee training, hazard recognition, fire safety, first air/emergency medical, spill control and containment, hazard communication, personal protective equipment training, and release reporting requirements. These programs and procedures will be updated, as necessary, to include the additional 60,000 barrel AST.

All hazardous materials are (and will be) used in compliance with established OSHA or Cal/OSHA regulations and procedures, including providing adequate ventilation, using recommended personal protective equipment and clothing, posting appropriate signs and warnings, and providing adequate worker health and safety training. These regulations and procedures provide comprehensive measures to reduce hazards, if any, of explosive or otherwise hazardous materials. Compliance with these and other federal, state and local regulations, as well as the proper operation and maintenance of equipment will

ensure that the potential for accidental releases of hazardous materials will remain less than significant at the KM Carson Terminal.

c) No existing or proposed schools are located within one-quarter mile of the KM Carson Terminal. The closest school is located approximately 1.75 miles to the east in Long Beach. The proposed project will not emit hazardous emissions, or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

d) Government Code §65962.5 typically refers to a list of facilities that may be subject to Resource Conservation and Recovery Act (RCRA) permits. Hazardous materials and hazardous waste at the KM Carson Terminal will continue to be managed in accordance with all applicable federal, state and local rules and regulations.

There are five properties in the vicinity of the KM Carson Terminal currently listed in Department of Toxic Substances Control's (DTSC) EnviroStor database as shown in Table 5 below. EnviroStor is a database that contains information on investigation, cleanup, permitting, and/or corrective actions that are planned, being conducted or have been completed under DTSC's oversight.

TABLE 5
FACILITIES SURROUNDING PROJECT SITE IN DTSC DATABASE

Facility Name	Type of Cleanup	Cleanup Status	Facility Address
Coons Trust Property	Voluntary Cleanup	Certified/Operation and Maintenance-Land Use Restrictions	2254 E. 223rd Street Carson, CA 90810
Manville Corporation	State Response	Certified/Operation and Maintenance-Land Use Restrictions	2420 E. 223rd Street Carson, CA 90810
Monsanto Chemical Company	State Response	Active	2100 E. 223rd Street Carson, CA 90810
Shell Oil Products U.S.-Carson Terminal	Hazardous Waste Non-Operating	Referred	20945 So. Wilmington Ave Carson, CA 90810
Tesoro Refining & Marketing Company-Sulfur Recovery Plant	Hazardous Waste Non-Operating	Active	23208 S. Alameda Street Carson, CA 90810

Source: DTSC EnviroStor, August 29, 2008 run.

In addition, the KM Carson Terminal is currently undergoing corrective action and cleanup activities in response to a Los Angeles Regional Water Quality Control Board (LARWQCB) Cleanup and Abatement Order (CAO) No. 90-152 issued on November 6, 1990 for soil and groundwater contamination at the site. Kinder Morgan is coordinating with the LARWQCB to implement activities outlined in a remedial action plan (RAP) that include the further characterization and remediation of the site to meet landfill closure requirements in accordance with California Code of Regulations (CCR) Title 27. The construction of a new 60,000 barrel AST for the storage of ethanol will not affect ongoing corrective action and cleanup activities occurring at the site.

e) & f) The project is not located within an airport land use plan area or, where such a plan has not been adopted, within two miles of a public airport or public use airport, and is not located within the vicinity of a private airport. There are three airports within approximately 10 miles of the project site. The closest airport is the Compton Airport, 7.5 miles to the north, at 901 W. Alondra Boulevard, in the City of Compton. The next closest is the Long Beach Airport, 8 miles to the east, at 4100 E. Donald Douglas Drive, in the City of Long Beach. The furthest away is the Torrance Airport, 11 miles to the west, at 3301

Airport Drive, in the City of Torrance. Therefore, the proposed project is not expected to result in a safety hazard for people residing or working in the project area.

g) California Health & Safety Code §25506 specifically requires all businesses handling hazardous materials to submit a business emergency response plan to assist local administering agencies in the emergency release or threatened release of a hazardous material. Business emergency plans generally require the following:

- Identification of individuals responsible for various activities, including reporting, assisting emergency response personnel and establishing an emergency response team;
- Notification procedures (e.g. to local administering and emergency rescue personnel, the state Office of Emergency Services, and facility responders);
- Response procedures to mitigate a release or threatened release to minimize any potential harm or damage to persons, property or the environment;
- Evacuation plan procedures;
- Description of emergency equipment onsite and local emergency medical assistance; and
- Training programs for employees.

In general, cities, counties and all facilities using a minimum amount of hazardous materials are required to formulate detailed contingency plans to reduce the possibility and effect of fires, explosions, or spills. In conjunction with the state Office of Emergency Services, local jurisdictions have enacted ordinances that set standards for emergency response plans. These requirements, as outlined above, include immediate notification, mitigation of an actual or threatened release of a hazardous materials, and evacuation of the area. The proposed project will not alter the KM Carson Terminal's ability to comply with emergency response regulations or ordinances.

h) The proposed project will be implemented at an existing tank farm facility within a heavy industrial land use area devoid of wildlands. As a result, it is highly unlikely that the affected facility will experience a significant risk of loss, injury or death attributed to wildland fires in the course of implementing the proposed project.

Conclusion

Based on the above discussion, the proposed project will not have a significant adverse impact on hazards and hazardous materials. Since no significant adverse impacts are anticipated, no mitigation measures are required.

		Potentially Significant Impact	**Less Than Significant Impact with Mitigation**	**Less Than Significant Impact**	**No Impact**
VIII.	**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?	☐	☐	☐	☑
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 flaws?	☐	☐	☐	☑
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?	☐	☐	☐	☑

HYDROLOGY AND WATER QUALITY DISCUSSION:

Significance Criteria

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

- The project will violate any water quality standards.
- 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 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.

Environmental Setting and Impacts

a), b) & f) The proposed project involves the construction of one steel 60,000 barrel AST for the purpose of storing ethanol within the boundaries of the existing KM Carson Terminal. The AST will be an internal floating roof tank, approximately 100 feet in diameter, and approximately 50 feet high. The proposed project does not include any provisions which would result in a violation of water quality standards, or otherwise substantially degrade water quality. Furthermore, the proposed project will not require the direct or indirect use of groundwater and, as a result, is not expected to impact groundwater supplies, influence groundwater quality, or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or the lowering of the local groundwater table level. As a result, groundwater supplies will not be depleted and groundwater recharge will not be affected by implementation of the proposed project.

c), d) & e) The proposed project involves the construction of a 60,000 barrel AST within an existing bermed area. The bermed area represents a containment area in case of a tank spill or leak. The drainage outside this bermed area will not be altered as a result of the proposed project, and surface runoff will not be increased. The proposed project will not require the alteration of any stream or river, thereby increasing erosion or siltation offsite, increase surface runoff (resulting in flooding), or exceed the capacity of stormwater drainage systems.

Currently, all rainwater is contained within bermed areas and transported to the facility's wastewater handling system, where it is retained and treated in accordance with the existing National Pollutant Discharge Elimination System (NPDES) permit, and Los Angeles County Department of Public Works and Los Angeles Sanitation District regulations. These existing conditions would not be altered with the proposed project. The new tank will be located within an existing diked/bermed area where rainwater will be contained and handled in the same manner.

The proposed project will not affect existing stormwater drainage infrastructure, or cause new stormwater drainage systems to be constructed within existing affected facilities. As part of the construction permitting process; however, the project will be required to prepare a Construction SWPPP that will

discuss the proposed project and set forth the BMPs that will be employed during rain events. BMPs will be employed to prevent sediment from flowing offsite into any open water ways or storm drains.

g), h), i) & j) The proposed project does not require the construction of any new housing, relocation of existing homes, or the siting of any new facilities within a 100-year flood hazard area. The proposed project involves the construction of one steel 60,000 barrel AST within the boundaries of the existing KM Carson Terminal. Since no structures will be constructed, or relocated, within a 100-year flood area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood delineation map, it is not expected that the proposed project will expose people or structures to significant new flooding risks. Further, the proposed project will not alter the existing setting to the extent that the affected facility will be subject to a greater potential for flood hazards such as inundation by seiche, tsunami, mud flow, or failure of a levee or dam.

Conclusion

Based on the above discussion, the proposed project will not have a significant adverse impact on hydrology and water quality. Since no significant adverse impacts are anticipated, no mitigation measures are required.

		Potentially Significant Impact	Less Than Significant Impact with Mitigation	Less Than Significant Impact	No Impact
IX.	**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?	☐	☐	☐	☑

LAND USE AND PLANNING DISCUSSION:

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.

Environmental Setting and Impacts

a) – c) The KM Carson Terminal encompasses approximately 98.7 acres at the southeast corner of Alameda Street and Sepulveda Boulevard. The City of Carson has zoned the area MH (Heavy Manufacturing) and designated the land use heavy industrial. The property is currently bounded by heavy industrial activities:

North:	Air Products and BP Refinery
Northwest:	BP Refinery
West:	Conoco Phillips Refinery (formerly Tosco Carson Refinery)
South:	Equilon Refinery
Southwest:	BNSF Intermodal Facility
East:	Dominguez Channel, Valero Refinery, POLA Intermodal Container Transfer Facility.

The proposed project would occur on-site, within the boundaries of the existing facility. Since the proposed project affects an existing facility within an industrial area, and any modifications would occur entirely within the boundary of this affected facility, the proposed project will not physically divide an established community.

The proposed project is consistent with the City of Carson land use designation and zoning ordinance. The proposed project will include a modification of the facility's existing conditional use permit (CUP) to include this new 60,000 barrel AST; however, no actions to amend the general plan, or apply for a zone change, are anticipated.

The proposed project site is not located within a habitat conservation plan or natural community conservation plan. As a result, no conflicts with such plans would occur as a result of the proposed project.

Conclusion

Based on the above discussion, the proposed project will not have a significant adverse impact on land use and planning. Since no significant adverse impacts are anticipated, no mitigation measures are required.

	Potentially Significant Impact	**Less Than Significant Impact with Mitigation**	**Less Than Significant Impact**	**No Impact**
X. 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?	☐	☐	☐	☑

MINERAL RESOURCES DISCUSSION:

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.

Environmental Setting and Impacts

a) & b) There are no provisions in the proposed project that would result in the loss of, or availability of a known mineral resource of value to the region and the residents of the state, or of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan. The project site is located within the boundary of an existing industrial facility that is within a location previously disturbed and used as a tank farm for over 70 years.

Conclusion

Based on the above discussion, the proposed project will not have a significant adverse impact on mineral resources. Since no significant adverse impacts are anticipated, no mitigation measures are required.

		Potentially Significant Impact	**Less Than Significant Impact with Mitigation**	**Less Than Significant Impact**	**No Impact**
XI.	**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 airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☑

NOISE DISCUSSION:

Significance Criteria

Impacts on noise will be considered significant if:

- Construction noise levels exceed local noise ordinances or, if the noise threshold is currently exceeded, project noise sources increase ambient noise levels by more than three A weighted 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.

Environmental Setting and Impacts

a) - d) Noise is usually defined as sound that is undesirable because it interferes with speech communication and hearing, is intense enough to damage hearing, or is otherwise annoying (unwanted noise). Sound levels are measured on a logarithmic scale in decibels (dB). The universal measure for environmental sound is the "A" weighted sound level, dBA, which is the sound pressure level in decibels as measured on a sound level meter using the A-weighted filter network. "A" scale weighting is a set of mathematical factors applied by the measuring instrument to shape the frequency content of the sound in a manner similar to the way the human ear responds to sounds.

The State Department of Aeronautics and the California Commission of Housing and Community Development have adopted the Community Noise Equivalent Level (CNEL). The CNEL is the adjusted noise exposure level for a 24-hour day and accounts for noise source, distance, duration, single event occurrence frequency, and time of day. The CNEL considers a weighted average noise level for the evening hours, from 7:00 p.m. to 10:00 p.m., increased by five dBA, and the late evening and morning hour noise levels from 10:00 p.m. to 7:00 a.m., increase by 10 dBA. The daytime noise levels are combined with these weighted levels and averaged to obtain a CNEL value. The adjustment accounts for

the lower tolerance of people to noise during the evening and nighttime hours relative to the daytime hours.

Federal, state and local agencies regulate environmental and occupational, as well as, other aspects of noise. Federal and state agencies generally set noise standards for mobile sources, while regulation of stationary sources is left to local agencies. Local regulation of noise involves implementation of General Plan policies and noise ordinance standards, which are general principles intended to guide and influence development plans. Noise ordinances set forth specific standards and procedures for addressing particular noise sources and activities. The Occupational Safety and Health Administration (OSHA) sets and enforces noise standards for worker safety.

Section 4100 (Unnecessary Noises) of Chapter I, Article IV in the City of Carson Municipal Code, controls any disturbing, excessive or offensive noise which causes discomfort or annoyance to any reasonable person of normal sensitivity residing in the community.

In 1995, the City of Carson adopted the "Noise Control Ordinance of the County of Los Angeles," as amended, as the City's Noise Control Ordinance. The adopted Noise Ordinance sets standards for noise levels citywide and provides the means to enforce the reduction of obnoxious or offensive noises. The noise sources enumerated in the Noise Ordinance include radios, phonographs, loudspeakers and amplifiers, electric motors or engines, animals, motor vehicles and construction equipment. The Noise Ordinance sets interior and exterior noise levels for all properties within designated noise zones, unless exempted, as shown in Table 6, *Noise Ordinance Standards*. Enforcing the Noise Ordinance includes requiring proposed development projects to show compliance with the ordinance, and requiring construction activity to comply with established schedule limits. The ordinance will be reviewed periodically for adequacy and amended as needed to address community needs and development patterns.

TABLE 6
NOISE ORDINANCE STANDARDS

Noise Zone	Designated Noise Zone Land Use (Receptor Property)	Time Interval (dB)	Exterior Noise Level	Interior Noise Level
I	Noise Sensitive-area	Anytime	45	---
II	Residential Properties	10:00 pm to 7:00 am (nighttime) 7:00 am to 10:00 pm (daytime)	45 50	---
III	Commercial Properties	10:00 pm to 7:00 am (nighttime) 7:00 am to 10:00 pm (daytime)	55 60	---
IV	Industrial Properties	Anytime	70	---
All Zones	Multi-family	10:00 pm to 7:00 am	---	40
	Residential	7:00 am to 10:00 pm	---	45

Source: Section 12.08.490 and 12.08.40 of Los Angeles County Code. Nov. 2001

Modifications or changes associated with the implementation of the proposed project will take place within an existing facility located in a heavy industrial setting. The existing noise environment in this area is dominated by heavy equipment, vehicular and truck traffic in and around the facility, and process equipment/machinery. The site of the new tank is located within the interior of the tank farm more than 1,000 feet from both Sepulveda and Alameda [public] Streets. Therefore, construction of the tank will not

generate significant offsite noise impacts. The tank itself will not generate significant noise once operational and the day-to-day operations associated with the ancillary equipment (e.g., electric pumps) are not expected to add new sources of noise or vibration to any significant level. It is expected that the KM Carson Terminal will continue to comply with existing city, state and federal noise laws, ordinances and standards.

e) & f) The KM Carson Terminal is not located within an airport land use plan, or in the vicinity of a public airport, public use airport or private airstrip. There are three airports within approximately 10 miles of the project site. The closest airport is the Compton Airport, 7.5 miles to the north, at 901 W. Alondra Boulevard, in the city of Compton. The next closest is the Long Beach Airport, 8 miles to the east, at 4100 E. Donald Douglas Drive, in the City of Long Beach. The furthest away is the Torrance Airport, 11 miles to the west, at 3301 Airport Drive, in the City of Torrance. The proposed project is not expected to produce noise that exceeds existing noise levels in the area or expose people residing or working in the area to excessive noise levels.

In general, the proposed project affects the interior of an existing facility and will not generate excessive noise levels outside the boundary of this facility. Further, given ambient noise levels near the KM Carson Terminal, noise attenuation (the lowering of noise levels over distances), and compliance with local noise ordinances, potential noise impacts are not expected to be significant.

Conclusion

Based on the above discussion, the proposed project will not have a significant adverse impact on noise. Since no significant adverse impacts are anticipated, no mitigation measures are required.

	Potentially Significant Impact	Less Than Significant Impact with Mitigation	Less Than Significant Impact	No Impact
XII. 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?	☐	☐	☐	☑

POPULATION AND HOUSING DISCUSSION:

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.

Environmental Setting and Impacts

a) – c) The proposed project will not require any actions which will, either directly or indirectly, induce growth or adversely affect the City of Carson's population or population distribution. The proposed project will not require the construction of new roads or infrastructure outside the KM Carson Terminal. Construction of the proposed project will take place over a maximum of 11 months. During the peak construction phase, approximately 15 construction workers will be required. Construction activities can be accomplished by drawing construction workers from the existing local labor pool. Once operational, the project will not require additional employees for daily operations and maintenance. It is also not expected that implementation of the proposed project will result in the creation of a new industry that would affect population growth, directly or indirectly induce the construction of housing units, or require the displacement of people or housing to elsewhere in the city.

Conclusion

Based on the above discussion, the proposed project will not have a significant adverse impact on population and housing. Since no significant adverse impacts are anticipated, no mitigation measures are required.

	Potentially Significant Impact	Less Than Significant Impact with Mitigation	Less Than Significant Impact	No Impact
XIII. 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?	☐	☐	☐	☑
e) Other public facilities?	☐	☐	☐	☑

PUBLIC SERVICES DISCUSSION:

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.

Environmental Setting and Impacts

a) & b) The proposed project does not require any action which would alter and, thereby, adversely affect existing public services, or require an increase in governmental facilities or services to support the affected facility. The proposed project involves the construction of one steel 60,000 barrel AST for the purpose of storing ethanol within the boundaries of the existing KM Carson Terminal. The terminal has an existing automated program for fire prevention and emergency services. Water and foam systems are currently in place in case of emergency or fire as required by the National Fire Protection Association (NFPA) 11 and approved by the City of Carson. Once the automated system is initiated, the city fire department is called to respond. The new tank will be included with these systems, and under this program, as well. As a result, current fire, police and emergency services are adequate to serve existing operations, and the proposed project will not result in the need for new or physically altered government facilities in order to maintain acceptable service ratios, response times, or other performance objectives.

c), d) & e) As previously mentioned in the section on "Population and Housing" the proposed project will not directly or indirectly induce population growth in the local area. The proposed project involves adding one additional 60,000 barrel AST to an existing tank farm. As a result, the proposed result will not result in substantial adverse physical impacts on schools, parks or other public facilities, or create the need for new additional schools, parks or other public facilities.

Conclusion

Based on the above discussion, the proposed project will not have a significant adverse impact on public services. Since no significant adverse impacts are anticipated, no mitigation measures are required.

	Potentially Significant Impact	Less Than Significant Impact with Mitigation	Less Than Significant Impact	No Impact
XIV. RECREATION.				
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?	☐	☐	☐	☑

RECREATION DISCUSSION:

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.

Environmental Setting and Impacts

a) & b) The proposed project does not require any action which will promote or alter existing population growth or densities in the City of Carson. The proposed project involves the construction of one steel 60,000 barrel AST for the purpose of storing ethanol within the boundaries of the existing KM Carson Terminal. As a result, no provisions of the proposed project would either directly, or indirectly, cause an increase in the district's population that could increase the use of neighborhood/regional parks or recreational facilities, thereby causing any accelerated deterioration. Further, the proposed project will not involve the use of recreational facilities or require the construction of new, or the expansion of existing, recreational facilities to the detriment of the environment.

Conclusion

Based on the above discussion, the proposed project will not have a significant adverse impact on recreation. Since no significant adverse impacts are anticipated, no mitigation measures are required.

		Potentially Significant Impact	Less Than Significant Impact with Mitigation	Less Than Significant Impact	No Impact
XV.	**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?	☐	☐	☐	☑
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)?	☐	☐	☐	☑

TRANSPORTATION/TRAFFIC:

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 (e.g., 350 heavy-duty truck round-trips per day) 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.

Environmental Setting and Impacts

The project site is located in the City of Carson, in the southeast corner of Alameda Street and Sepulveda Boulevard. Transportation infrastructure in the area include the 710 freeway to the east, the 405 freeway to the north, and Pacific Coast Highway to the south. Other notable facilities in the area include Wilmington Avenue, and 223rd Street. Wilmington Avenue and Alameda Street are north/south facilities classified as major highways in the City of Carson General Plan. Sepulveda Boulevard and 223rd Street are east/west facilities, also classified as major highways in the City of Carson General Plan. The land use within the immediate and surrounding vicinity of the project site is heavy industrial, attracting both truck and rail traffic for the movement of goods and materials.

a) & b) The proposed project involves the construction of one steel 60,000 barrel AST for the purpose of storing ethanol within the boundaries of the existing KM Carson Terminal.

Operational Transportation-Related Emissions

Once operational, the proposed project will not generate any additional traffic to or from the KM Carson Terminal. The ethanol will be transported to the facility via pipeline, not by truck. The ethanol will ultimately be blended into the gasoline that goes to market from the facility. No additional part-time or full-time personnel will be required as a result of the additional tank, which would contribute to an increase in operational-related passenger/commute trips.

As a result, the proposed project is not expected to adversely affect existing traffic levels, or exceed the level of service standards on roadways or at intersections in the vicinity of the affected facility once the AST is constructed. Therefore, since no additional operational-related truck trips or passenger/commute trips are anticipated, the implementation of the proposed project is not expected to cause a significant adverse affect, either individually or cumulatively, on circulation patterns, local roadways or the level of service at intersections near the KM Carson Terminal.

Construction Transportation-Related Emissions

Under the worst-case construction scenario the traffic in and out of the KM Carson Terminal will increase during construction, but not substantially. The potential construction scenario consists of five phases: (1) grading and site preparation; (2) pouring of foundation; (3) delivery of materials; (4) tank erection; and (5) electrical and piping. During the peak construction phase (e.g., grading and site preparation) there will

be a traffic increase of 30 one-way worker commute trips and six one-way truck trips per day to and from the facility. The increase in heavy-duty truck traffic to and/or from the KM Carson Terminal during construction will be less than the SCAQMD significance threshold of 350 truck round trips per day. It is unlikely that the peak day construction traffic will affect the level of service (or volume-to-capacity ratio) at any single intersection in close proximity of the facility due to the minimal number of trips. Therefore, because the number of construction vehicle trips is so low, the proposed project is not expected to impact the existing traffic load and capacity of the street system, or exceed the level of service standard established by the county congestion management agency for designated roads or highways.

c) The KM Carson Terminal is not located within an airport land use plan, or in the vicinity of a public airport, public use airport or private airstrip. There are three airports within approximately 10 miles of the project site. The closest airport is the Compton Airport, 7.5 miles to the north, at 901 W. Alondra Boulevard, in the City of Compton. The next closest is the Long Beach Airport, 8 miles to the east, at 4100 E. Donald Douglas Drive, in the City of Long Beach. The furthest away is the Torrance Airport, 11 miles to the west, at 3301 Airport Drive, in the City of Torrance. Furthermore, the proposed project has no requirements that influence or affect air traffic patterns. The proposed project will require the construction of an AST; however, the elevation will not exceed 50 feet, and the height and appearance of the proposed new tank will be consistent with the existing tanks at the KM Carson Terminal. All other project modifications (e.g., piping and ancillary equipment) will occur at ground level and will not affect air traffic patterns, require transport of any materials by plane, or result in a substantial safety risk to air traffic.

d), e), f) & g) The proposed project involves the construction of one steel 60,000 barrel AST for the purpose of storing ethanol within the boundaries of the existing KM Carson Terminal. There are no components of the proposed project that require construction of roadways that could include transportation design features, sharp curves, dangerous intersections or incompatible uses on local streets and highways. Any modifications to the KM Carson Terminal will occur within the boundaries of the affected existing facility. Further, the proposed project does not include any components which would affect existing emergency access, parking capacity or any adopted policies, plans or programs regarding alternative transportation.

The analysis of both construction and operational traffic concluded that the daily vehicle trips associated with the implementation of the proposed project are less than the SCAQMD's significance threshold for transportation and, therefore, not significant.

Conclusion

Based on the above discussion, the proposed project will not have a significant adverse impact on transportation/traffic. Since no significant adverse impacts are anticipated, no mitigation measures are required.

	Potentially Significant Impact	Less Than Significant Impact with Mitigation	Less Than Significant Impact	No Impact
XVI. **UTILITIES AND SERVICE SYSTEMS**: Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☑
b) 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?	☐	☐	☐	☑
c) 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?	☐	☐	☐	☑
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☑
e) Require in 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?	☐	☐	☐	☑
f) Be served by a landfill with sufficient permitted capacity to accommodate the projects solid waste disposal needs?	☐	☐	☐	☑
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☑

UTILITIES AND SERVICE SYSTEMS

Significance Criteria

The impacts on utilities and service systems will be considered significant if any of the following criteria apply:

- Wastewater treatment requirements are exceeded.
- 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 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.
- New, or expanded, water or wastewater facilities are required to be constructed which would cause significant impacts.
- New, or expanded, stormwater drainage facilities are required to be constructed which would cause significant impacts.
- Have insufficient landfill capacity to serve the project.
- Non-compliance with local, state or federal solid waste management statutes or regulations.

Environmental Setting and Impacts

a) – e) The proposed project involves the construction of one steel 60,000 barrel AST for the purpose of storing ethanol within the boundaries of the existing KM Carson Terminal. The proposed project does not include any components that will alter existing water or wastewater conditions onsite. As an existing facility, the KM Carson Terminal currently generates wastewater subject to relevant wastewater requirements, waste discharge regulations, and other relevant requirements for discharges into sewer systems or from the site. Modifications to the facility due to the proposed project will not alter these existing conditions. The proposed project will not require the construction of any new water or wastewater facilities, or the expansion of existing facilities. Further, sufficient water and wastewater systems are available onsite to service the proposed project once operational.

f) & g) The proposed project does not include any provisions which would result in the generation of additional solid waste that would require disposal to a non-hazardous landfill. Any and all existing waste management practices onsite are handled in accordance with local, state and federal regulations. The proposed project would not alter any existing conditions related to the handling of solid waste at the KM Carson Terminal. As a result, the implementation of the proposed project has no impact on solid waste service systems.

Conclusion

Based on the above discussion, the proposed project will not have a significant adverse impact on utilities and service systems. Since no significant adverse impacts are anticipated, no mitigation measures are required.

	Potentially Significant Impact	Less Than Significant Impact with Mitigation	Less Than Significant Impact	No Impact
XVII. 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?	☐	☐	☐	☑
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?	☐	☐	☐	☑

DISCUSSION OF MANDATORY FINDINGS OF SIGNIFICANCE:

a) The proposed project will be constructed on land that is already disturbed within an existing facility that has been operating as a tank farm for 70 years. As discussed in the "Biological Resources" section, the proposed project is not expected to significantly adversely affect plant or animal species or any habitat on which they rely because the new 60,000 barrel AST will be located entirely within the boundaries of the existing KM Carson Terminal in a heavy industrial area that has already been greatly disturbed and that currently does not support animal species or the habitats on which they rely. While sensitive species were identified in the CNDD as known to inhabit areas in the general vicinity of the project site in 2003, none were observed during the biological reconnaissance conducted in 2003, or the biological

reconnaissance conducted in December 2008. Further, no cultural resources or paleontological resources were found to exist within the project site.

Based on these considerations, the proposed project does not 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.

b) Based on the foregoing analyses, since the proposed project will not result in significant adverse project-specific environmental impacts, it is not expected to cause cumulative impacts in conjunction with other projects that may occur concurrently in close proximity to the KM Carson Terminal. The project site is located within a developed industrial area, with no major expansion of other industrial uses known at this time. Furthermore, potential adverse impacts from implementing the proposed project will not be "cumulatively considerable" because there are no, or only minor incremental impacts and there will be no contribution to a significant cumulative impact caused by other projects that would exist in absence of the proposed project. Therefore, there is no potential for significant adverse cumulative or cumulatively considerable impacts to be generated by the proposed project.

c) Based on the foregoing analyses, the proposed project does not have environmental impacts that will cause substantial direct or indirect adverse effects on human beings.

REFERENCES

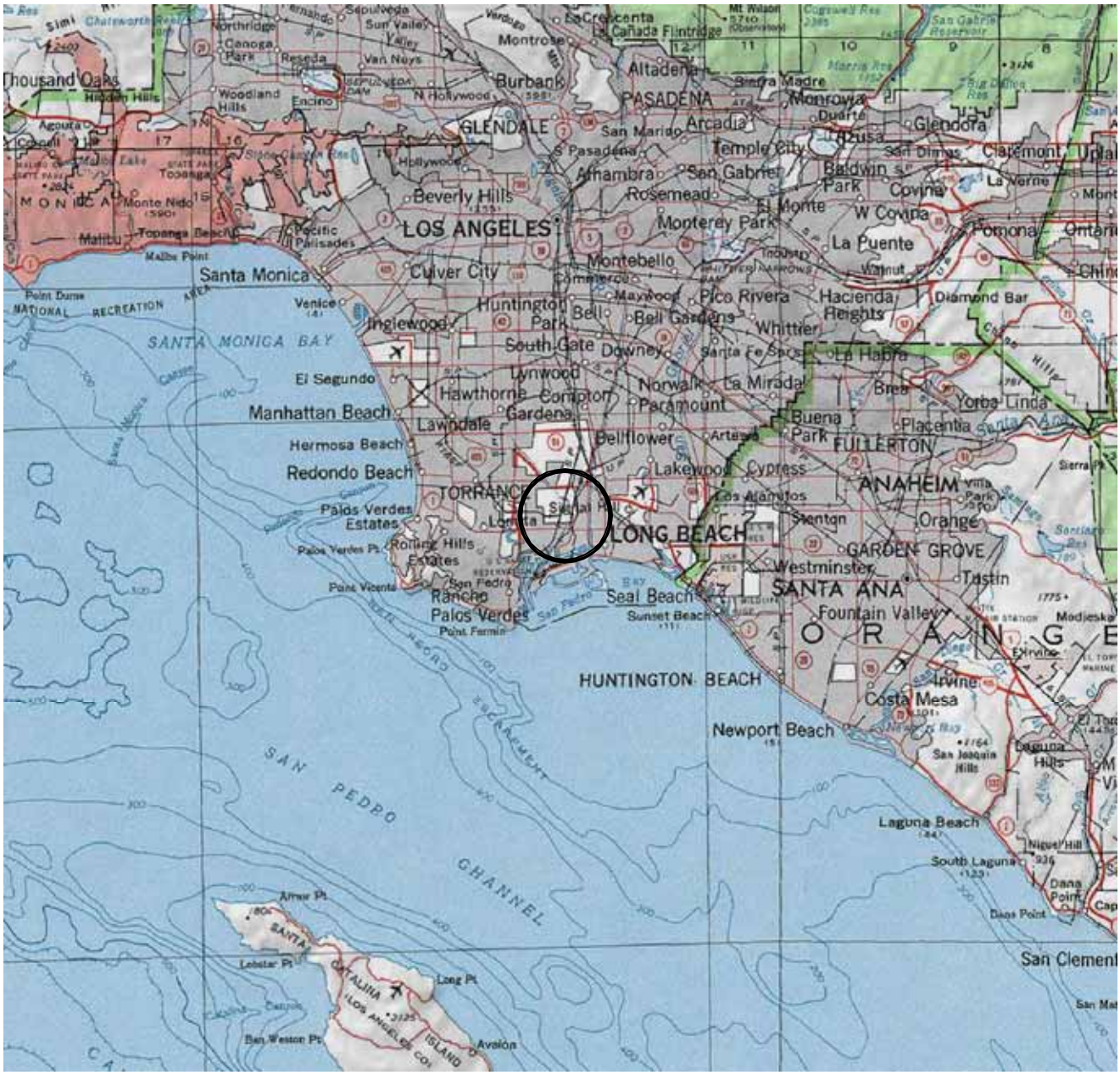
Air Quality Analysis prepared by Robert Onufer of SABS Environmental Services, Inc., October, 2008.

City of Carson General Plan, Noise Element, September 29, 2006.

City of Carson General Plan, Land Use, September 29, 2006.

CNDDB. 1996-2008. The California Natural Diversity Database. California Department of Fish and Game, Natural Heritage Division, Sacramento, California. Search performed December 23, 2008 for Long Beach and Torrance, USGS 7.5-minute quadrangles.

Environmental Impact Report for the Carson Terminal Expansion, SCH No. 2003061130, September 2003.



N

SOURCE:

United States Geological Survey
500K Topographic Map:
Torrance Quadrangle

0 12.5 25 MILES

SCALE

TRC

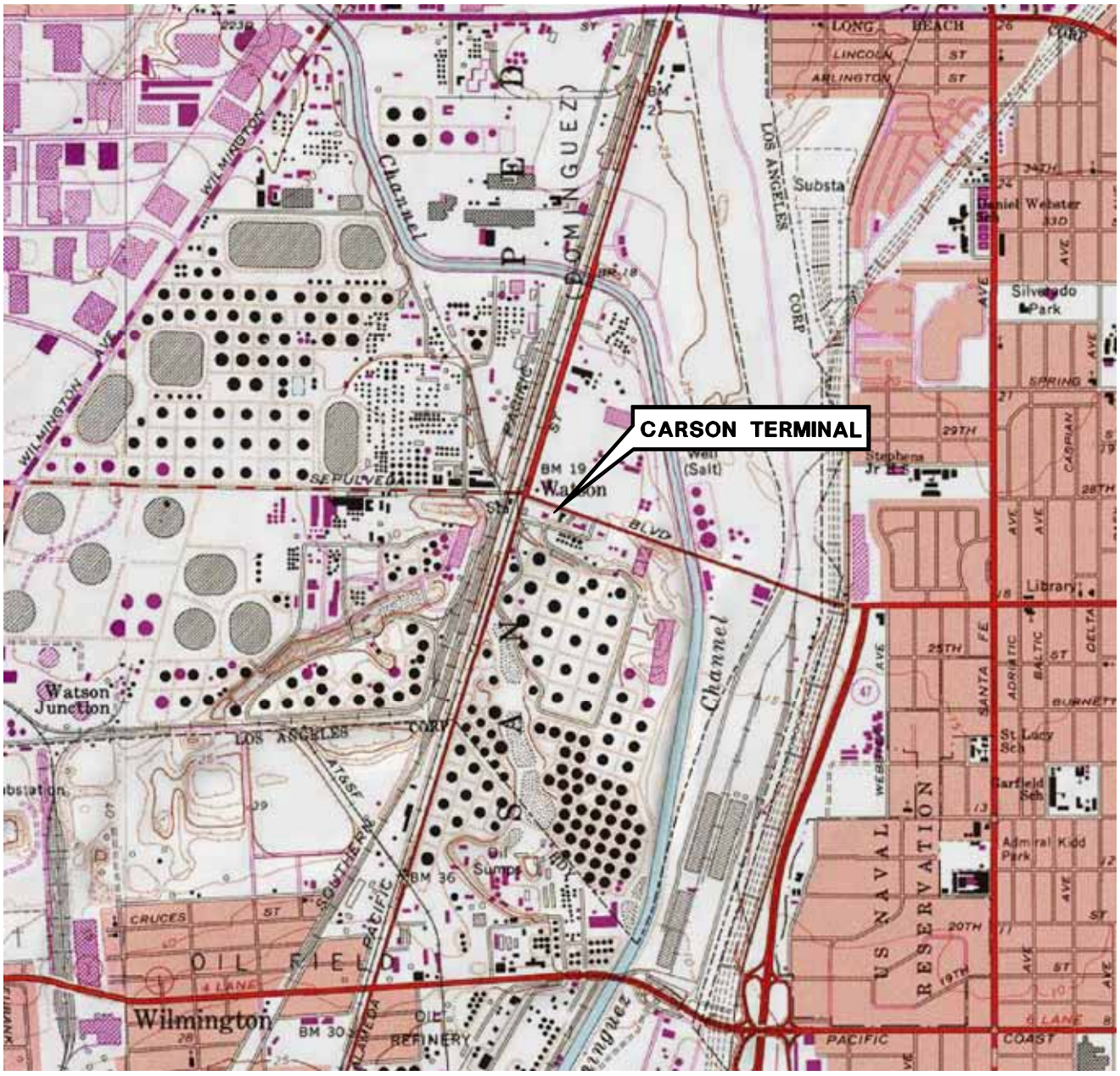
PROJECT: 162805

FACILITY: KINDER MORGAN
CARSON TERMINAL
2000 E. SEPULVEDA BOULEVARD
CARSON, CALIFORNIA

REGIONAL LOCATION MAP

FIGURE 1

PS=1:1 L:\Graphics\ProjectsByNumber\25-xxxx\25-1000_25-1199\25-1108_KMorgan-CarsonTerminal\251108-REGIONALVM.dwg Nov 12, 2008 - 2:04pm Rcollins



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SOURCE:

United States Geological Survey
7.5 Minute Topographic Map:
Torrance Quadrangle

0 1/4 1/2 3/4 1 MILE

SCALE 1: 24,000

TRC

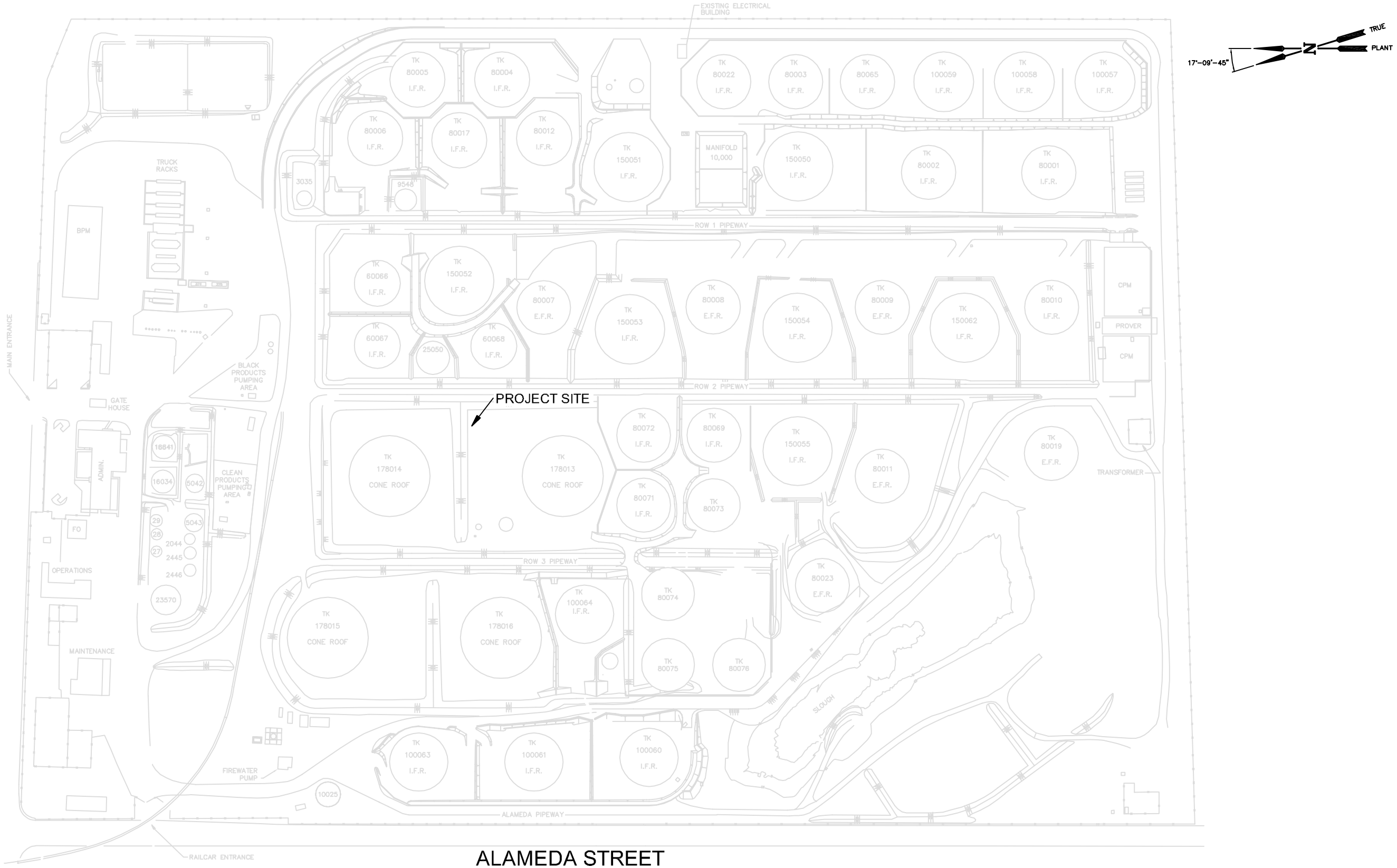
PROJECT: 162805

FACILITY:
KINDER MORGAN
CARSON TERMINAL
2000 E. SEPULVEDA BOULEVARD
CARSON, CALIFORNIA

VICINITY MAP

FIGURE 2

PS=1:1 L:\Graphics\ProjectsByNumber\25-xxxx\25-1000_25-1199\25-1108_KMorgan-CarsonTerminal\KM-CARSONTERMINALVM.DWG Nov 12, 2008 - 2:05pm Rcollins



NOTE:

Modified from a drawing provided by SPEC Services, Inc., dated 10/01/08.

SCALE (FEET)

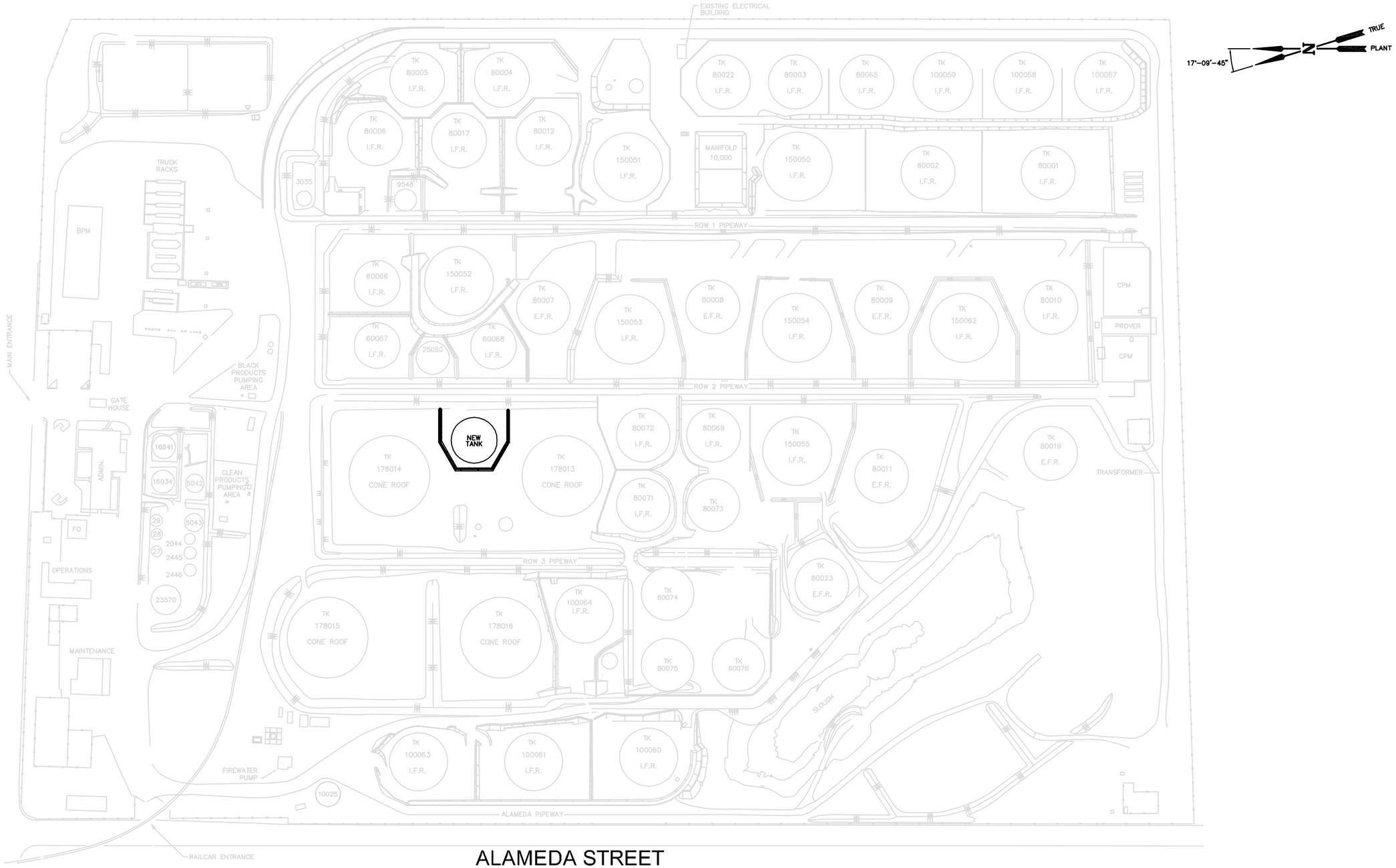
0 220

PROJECT: 162805

FACILITY:
KINDER MORGAN
CARSON TERMINAL
2000 E. SEPULVEDA BOULEVARD
CARSON, CALIFORNIA

SITE PLAN - EXISTING CONDITIONS

FIGURE 3



SEPULVEDA BOULEVARD

ALAMEDA STREET

NOTE:

Modified from a drawing provided by SPEC Services, Inc., dated 10/01/08.

SCALE (FEET)

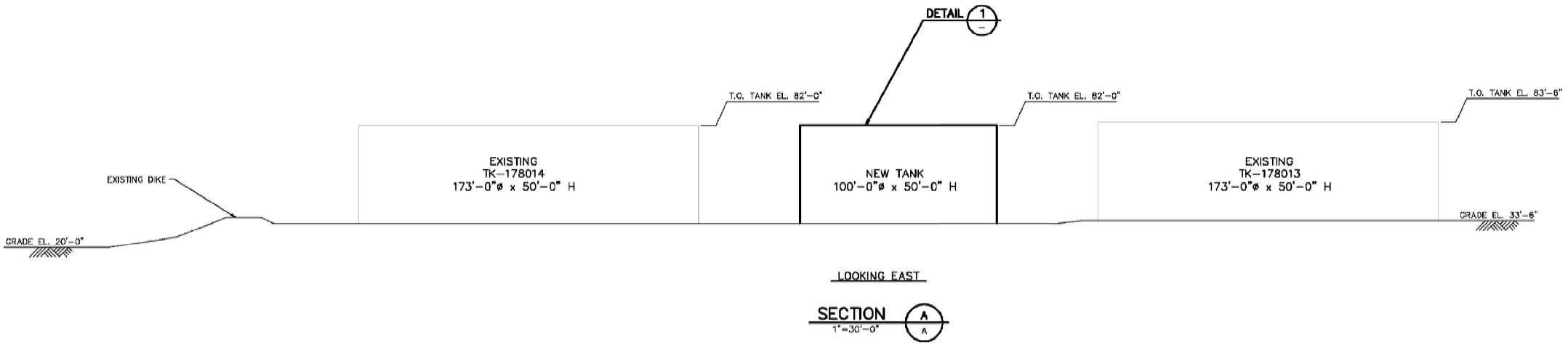
0 220

PROJECT: 162805

FACILITY:
KINDER MORGAN
CARSON TERMINAL
2000 E. SEPULVEDA BOULEVARD
CARSON, CALIFORNIA

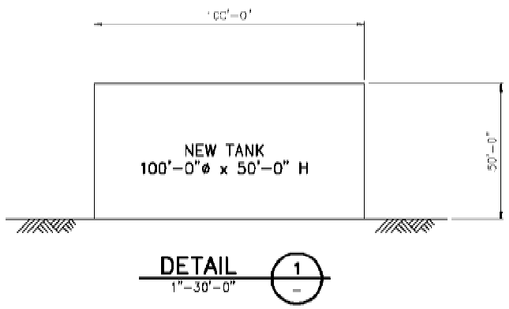
SITE PLAN - PROPOSED PROJECT

FIGURE 4



LOOKING EAST

SECTION A
1"=30'-0"



DETAIL 1
1"=30'-0"

NOTE:

Modified from a drawing provided by SPEC Services, Inc., dated 6/10/08.

TRC	PROJECT: 162805 FACILITY: KINDER MORGAN CARSON TERMINAL 2000 E. SEPULVEDA BOULEVARD CARSON, CALIFORNIA	**NEW 60,000 BARREL TANK ELEVATION DRAWING** **FIGURE 5**

MS=1:2640 (inches 220x12) L:\Graphics\ProjectsByNumber\25-xxxx\25-1000_25-1199\25-1108_KMorgan-CarsonTerminal\CARSON-XS-A.dwg Nov 12, 2008 - 2:12pm Rcollins

Photo 1: View of site looking southwest.

Photo 2: View of site looking west.

Photo 3: View of site looking northwest.

Photo 4: View of site looking southeast.

Photo 5: View of site looking east.

Photo 6: View of site looking northeast.

TRC	PROJECT: 162805 FACILITY: KINDER MORGAN CARSON TERMINAL 2000 E. SEPULVEDA BOULEVARD CARSON, CALIFORNIA	**SITE PHOTOS** **EXISTING CONDITIONS** **FIGURE 6**

APPENDIX A

Detailed Construction Air Quality Analysis
Emissions, Assumptions and Emission Factors by Phase

The Peak phase for construction activities associated with the proposed project is Phase I.

Construction Emissions - Phase I : Grading and Site Preparation

Source	ROG (lbs/day)	CO (lbs/day)	NOX (lbs/day)	SOX (lbs/day)	PM 10 (lbs/day)	PM 2.5 (lbs/day)	CO2 (lbs/day)	CH4 (lbs/day)
Excavators	1.53	4.14	16.05	0.02	0.56	0.49	1590	0.14
Graders	1.86	5.19	19.03	0.02	0.71	0.63	1720	0.17
Rubber Tired Loaders	1.58	4.43	16.33	0.02	0.60	0.53	1490	0.14
Scrapers	2.75	7.75	26.16	0.02	1.07	0.95	2090	0.25
Water Truck	0.33	1.28	4.18	0.004	0.20	0.18	400	0.02
Delivery Trucks	0.28	2.02	2.24	0.003	0.08	0.07	300	0.01
Worker Vehicles	0.60	5.82	0.60	0.01	0.06	0.06	600	0.06
Fugitive Dust - Excavation					10.50	0.02		
Fugitive Dust - Grading					13.2	0.06		
Totals	8.92	30.63	84.58	0.09	26.97	2.99	8190	0.79
Significance Thresholds	75	550	100	150	150	55	NE	NE
Significant?	No	No	No	No	No	No		

*NE = None established.

SCAQMD Off-Road Mobile Source Emission Factors - Scenario Year 2009

SCAQMD EMFAC2007 Emission Factors (version 2.3) - Scenario Year 2009 for On-Road Passenger Vehicles & Delivery Trucks, and Heavy-Heavy Diesel Trucks

Assumptions

Construction expected to occur between February 2009 and December 2009 (11 months).
Phase I duration is approximately 28 days.
Construction site (disturbed surface) is one acre.
Excavator - 1 @ 10 hours a day
Grader - 1 @ 10 hours a day
Rubber Tired Loader - 1 @ 10 hours a day
Scraper - 1 @ 10 hours a day
Water Truck - 1 truck, 2 one way trips of 50 miles per trip = 100 VMT/day
Delivery Trucks - 2 trucks, 4 one way trips of 25 miles per trip = 100 VMT/day
Worker Vehicles - 15 employees, 30 one way trips of 20 miles per trip = 600 VMT/day
PM10 EF for excavation = 0.00112 x [(G/5)1.3/(H/2)1.4] x I/J; where G=mean wind speed of 12 mph, H=moisture content of surface material of 2%, I=lbs of dirt handled per day, and J=2,000 lbs/ton. SCAQMD CEQA Handbook Table A9-9-G.
PM10 EF for grading is 26.4 pounds/day/acre (uncontrolled). SCAQMD CEQA Handbook Table A9-9.
Fugitive Dust PM10 incorporates a 0.5 water control factor
Fugitve Dust PM2.5 is 0.208% of PM10 based on SCAQMD PM2.5 Methodology/CEIDARS Table A.
Combustion Source Fugitive Dust PM2.5 is 89% of PM10 based on SCAQMD PM2.5 Methodology.

Construction Emissions - Phase II : Pouring Foundation

Source	ROG (lbs/day)	CO (lbs/day)	NOX (lbs/day)	SOX (lbs/day)	PM 10 (lbs/day)	PM 2.5 (lbs/day)	CO2 (lbs/day)	CH4 (lbs/day)
Rubber Tired Loader	1.58	4.43	16.33	0.02	0.60	0.53	1490	0.14
Other Construction Equipment	7.20	27.38	46.22	0.05	3.95	3.52	4045	0.65
Cement Trucks	0.83	3.20	10.45	0.01	0.50	0.45	1000	0.05
Delivery Trucks	0.28	2.02	2.24	0.003	0.08	0.07	300	0.01
Worker Vehicles	0.60	5.82	0.60	0.01	0.06	0.06	600	0.06
Totals	**10.48**	**42.85**	**75.84**	**0.08**	**5.19**	**4.63**	**7435**	**0.91**
Significance Thresholds	75	550	100	150	150	55	NE	NE
Significant?	No	No	No	No	No	No		

*NE = None established.

SCAQMD Off-Road Mobile Source Emission Factors - Scenario Year 2009

SCAQMD EMFAC2007 Emission Factors (version 2.3) - Scenario Year 2009 for On-Road Passenger Vehicles & Delivery Trucks, and Heavy-Heavy Diesel Trucks

Assumptions

Construction expected to occur between February 2009 and December 2009 (11 months).

Phase II duration is approximately 56 days.

Construction site (disturbed surface) is one acre.

Rubber Tired Loader - 1 @ 10 hours a day.

Cement Trucks - 5 trucks, 10 one way trips of 25 miles per trip = 250 VMT/day

Other Construction Equipment - 5 @ 10 hours a day.

Water Truck - 1 truck, 2 one way trips of 50 miles per trip = 100 VMT/day

Delivery Trucks - 2 trucks, 4 one way trips of 25 miles per trip = 100 VMT/day

Worker Vehicles - 15 employees, 30 one way trips of 20 miles per trip = 600 VMT/day

Combustion Source Fugitive Dust PM2.5 is 89% of PM10 based on SCAQMD PM2.5 Methodology.

Construction Emissions - Phase III : Material Delivery

Source	ROG (lbs/day)	CO (lbs/day)	NOX (lbs/day)	SOX (lbs/day)	PM 10 (lbs/day)	PM 2.5 (lbs/day)	CO2 (lbs/day)	CH4 (lbs/day)
Delivery Trucks	0.28	2.02	2.24	0.003	0.08	0.07	300	0.01
Worker Vehicles	0.60	5.82	0.60	0.01	0.06	0.06	600	0.06
Totals	**0.88**	**7.84**	**2.84**	**0.01**	**0.14**	**0.13**	**900**	**0.07**
Significance Thresholds	75	550	100	150	150	55	NE	NE
Significant?	No	No	No	No	No	No		

*NE = None established.

SCAQMD Off-Road Mobile Source Emission Factors - Scenario Year 2009

SCAQMD EMFAC2007 Emission Factors (version 2.3) - Scenario Year 2009 for On-Road Passenger Vehicles & Delivery Trucks, and Heavy-Heavy Diesel Trucks

Assumptions

Construction expected to occur between February 2009 and December 2009 (11 months).

Phase III duration is approximately 28 days.

Construction site (disturbed surface) is one acre.

Delivery Trucks - 2 trucks, 4 one way trips of 25 miles per trip = 100 VMT/day

Worker Vehicles - 15 employees, 30 one way trips of 20 miles per trip = 600 VMT/day

Combustion Source Fugitive Dust PM2.5 is 89% of PM10 based on SCAQMD PM2.5 Methodology.

Construction Emissions - Phase IV : Tank Erection

Source	ROG (lbs/day)	CO (lbs/day)	NOX (lbs/day)	SOX (lbs/day)	PM 10 (lbs/day)	PM 2.5 (lbs/day)	CO2 (lbs/day)	CH4 (lbs/day)
Cranes	1.31	3.66	13.11	0.01	0.50	0.45	1120	0.12
Rubber Tired Loader	1.58	4.43	16.33	0.02	0.60	0.53	1490	0.14
Welders	1.70	5.52	10.25	0.010	0.89	0.79	790	0.15
Water Truck	0.33	1.28	4.18	0.004	0.20	0.18	400	0.02
Delivery Trucks	0.28	2.02	2.24	0.003	0.08	0.07	300	0.01
Worker Vehicles	0.60	5.82	0.60	0.01	0.06	0.06	600	0.06
Fugitive Dust-Construction					13.2	0.03		
Totals	**5.80**	**22.73**	**46.71**	**0.05**	**15.53**	**2.11**	**4700**	**0.51**
Significance Thresholds	75	550	100	150	150	55	NE	NE
Significant?	No	No	No	No	No	No		

*NE = None established.

SCAQMD Off-Road Mobile Source Emission Factors - Scenario Year 2009

SCAQMD EMFAC2007 Emission Factors (version 2.3) - Scenario Year 2009 for On-Road Passenger Vehicles & Delivery Trucks, and Heavy-Heavy Diesel Trucks

Assumptions

Construction expected to occur between February 2009 and December 2009 (11 months).
Phase IV duration is approximately 91 days.
Construction site (disturbed surface) is one acre.
Crane - 1 @ 10 hours a day
Welders - 2 @ 10 hours a day
Rubber Tired Loader - 1 @ 10 hours a day
Water Truck - 1 truck, 2 one way trips of 50 miles per trip = 100 VMT/day
Delivery Trucks - 2 trucks, 4 one way trips of 25 miles per trip = 100 VMT/day
Worker Vehicles - 15 employees, 30 one way trips of 20 miles per trip = 600 VMT/day
PM10 emission factor for soil movement is 26.4 pounds/day/acre (uncontrolled). SCAQMD CEQA Handbook Table A9-9.
Fugitive Dust - Soil Movement PM10 accounts for 0.5 water control factor (26.4 x 0.5 = 13.2)
Fugitve Dust-Soil Movement PM2.5 is 0.208% of PM10 based on SCAQMD PM2.5 Methodology/CEIDARS Table A.
Combustion Source Fugitive Dust PM2.5 is 89% of PM10 based on SCAQMD PM2.5 Methodology.

Construction Emissions - Phase V : Electrical and Piping Installation

Source	ROG (lbs/day)	CO (lbs/day)	NOX (lbs/day)	SOX (lbs/day)	PM 10 (lbs/day)	PM 2.5 (lbs/day)	CO2 (lbs/day)	CH4 (lbs/day)
Cranes	1.31	3.66	13.11	0.01	0.50	0.45	1120	0.12
Rubber Tired Loaders	1.58	4.43	16.33	0.02	0.60	0.53	1490	0.14
Water Truck	0.33	1.28	4.18	0.004	0.20	0.18	400	0.02
Delivery Trucks	0.28	2.02	2.24	0.003	0.08	0.07	300	0.01
Worker Vehicles	0.60	5.82	0.60	0.01	0.06	0.06	600	0.06
Totals	**4.10**	**17.22**	**36.46**	**0.04**	**1.44**	**1.29**	**3910**	**0.35**
Significance Thresholds	75	550	100	150	150	55	NE	NE
Significant?	No	No	No	No	No	No		

*NE = None established.

SCAQMD Off-Road Mobile Source Emission Factors - Scenario Year 2009

SCAQMD EMFAC2007 Emission Factors (version 2.3) - Scenario Year 2009 for On-Road Passenger Vehicles & Delivery Trucks, and Heavy-Heavy Diesel Trucks

Assumptions

Construction expected to occur between February 2009 and December 2009 (11 months).

Phase V duration is approximately 119 days.

Construction site (disturbed surface) is one acre.

Crane - 1 @ 10 hours a day for only 28 days during Phase V.

Rubber Tired Loader - 1 @ 10 hours a day

Water Truck - 1 truck, 2 one way trips of 50 miles per trip = 100 VMT/day

Delivery Trucks - 2 trucks, 4 one way trips of 25 miles per trip = 100 VMT/day

Worker Vehicles - 15 employees, 30 one way trips of 20 miles per trip = 600 VMT/day

Combustion Source Fugitive Dust PM2.5 is 89% of PM10 based on SCAQMD PM2.5 Methodology.

SCAQMD Off-Road Mobile Source Emission Factors - Scenario Year 2009

Equipment	MaxHP	ROG (lbs/hr)	CO (lbs/hr)	NOX (lbs/hr)	SOX (lbs/hr)	PM (lbs/hr)	CO2 (lbs/hr)	CH4 (lbs/hr)
Cranes	250	0.1314	0.3664	1.3105	0.0013	0.0501	112	0.0119
Excavators	250	0.1529	0.4138	1.6049	0.0018	0.0555	159	0.0138
Graders	250	0.1857	0.5191	1.9027	0.0019	0.0705	172	0.0168
Other Construction Equipment	120	0.1440	0.5475	0.9243	0.0009	0.0790	81	0.0130
Rubber Tired Loader	250	0.1578	0.4432	1.6331	0.0017	0.0600	149	0.0142
Scraper	250	0.2747	0.7749	2.6155	0.0024	0.1065	209	0.0248
Welders	120	0.0851	0.2759	0.5126	0.0005	0.0443	39.5	0.0077

SCAQMD EMFAC2007 Emission Factors (version 2.3) - Scenario Year 2009
On-Road Passenger Vehicles & Delivery Trucks, and Heavy-Heavy Diesel Trucks

Vehicle	ROG (lbs/mile)	CO (lbs/mile)	NOX (lbs/mile)	SOX (lbs/mile)	PM 10 (lbs/mile)	PM 2.5 (lbs/mile)	CO2 (lbs/mile)	CH4 (lbs/mile)
Passenger Vehicle	0.0010	0.0097	0.0010	0.00001	0.0001	0.0001	1	0.0001
Delivery Trucks	0.0028	0.0202	0.0224	0.00003	0.0008	0.0007	3	0.0001
Heavy-Heavy Duty Trucks-Diesel (Water Trucks, Cement Trucks)	0.0033	0.0128	0.0418	0.00004	0.0020	0.0018	4	0.0002

APPENDIX B

TANKS 4.0.9d – Operational Air Quality Analysis

TANKS 4.0.9d
Emissions Report - Detail Format
Tank Indentification and Physical Characteristics

Identification

User Identification:	Carson 60000 36
City:	Carson
State:	California
Company:	KMLT
Type of Tank:	Internal Floating Roof Tank
Description:	IFRT Ethanol 60000 barrel 36 turns

Tank Dimensions

Diameter (ft):	100.00
Volume (gallons):	2,520,000.00
Turnovers:	36.00
Self Supp. Roof? (y/n):	N
No. of Columns:	1.00
Eff. Col. Diam. (ft):	1.00

Paint Characteristics

Internal Shell Condition:	Light Rust
Shell Color/Shade:	White/White
Shell Condition	Good
Roof Color/Shade:	White/White
Roof Condition:	Good

Rim-Seal System

Primary Seal:	Mechanical Shoe
Secondary Seal	Rim-mounted

Deck Characteristics

Deck Fitting Category:	Detail
Deck Type:	Welded

Deck Fitting/Status	Quantity
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	1
Column Well (24-in. Diam.)/Built-Up Col.-Sliding Cover, Gask.	1
Ladder Well (36-in. Diam.)/Sliding Cover, Gasketed	1
Roof Leg or Hanger Well/Adjustable	32
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1
Automatic Gauge Float Well/Unbolted Cover, Gasketed	1
Slotted Guide-Pole/Sample Well/Gask. Sliding Cover, w. Float, Wiper	1
Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open	1

Meterological Data used in Emissions Calculations: Long Beach, California (Avg Atmospheric Pressure = 14.7 psia)

TANKS 4.0.9d
Emissions Report - Detail Format
Liquid Contents of Storage Tank

Carson 60000 36 - Internal Floating Roof Tank
Carson, California

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F) Avg.	Min.	Max.	Liquid Bulk Temp (deg F)	Vapor Pressure (psia) Avg.	Min.	Max.	Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Denatured Ethanol (RVP 4)	Jan	61.79	56.79	66.79	64.33	1.9605	N/A	N/A	46.0000			47.00	Option 1: VP60 = 1.88 VP70 = 2.33
Denatured Ethanol (RVP 4)	Feb	62.78	57.67	67.88	64.33	2.0049	N/A	N/A	46.0000			47.00	Option 1: VP60 = 1.88 VP70 = 2.33
Denatured Ethanol (RVP 4)	Mar	63.78	58.57	68.99	64.33	2.0501	N/A	N/A	46.0000			47.00	Option 1: VP60 = 1.88 VP70 = 2.33
Denatured Ethanol (RVP 4)	Apr	65.70	59.89	71.51	64.33	2.1367	N/A	N/A	46.0000			47.00	Option 1: VP60 = 1.88 VP70 = 2.33
Denatured Ethanol (RVP 4)	May	67.27	61.79	72.76	64.33	2.2074	N/A	N/A	46.0000			47.00	Option 1: VP60 = 1.88 VP70 = 2.33
Denatured Ethanol (RVP 4)	Jun	68.98	63.35	74.61	64.33	2.2840	N/A	N/A	46.0000			47.00	Option 1: VP60 = 1.88 VP70 = 2.33
Denatured Ethanol (RVP 4)	Jul	71.26	65.04	77.47	64.33	2.3980	N/A	N/A	46.0000			47.00	Option 1: VP70 = 2.33 VP80 = 2.87
Denatured Ethanol (RVP 4)	Aug	71.60	65.63	77.58	64.33	2.4166	N/A	N/A	46.0000			47.00	Option 1: VP70 = 2.33 VP80 = 2.87
Denatured Ethanol (RVP 4)	Sep	70.17	64.65	75.68	64.33	2.3360	N/A	N/A	46.0000			47.00	Option 1: VP70 = 2.33 VP80 = 2.87
Denatured Ethanol (RVP 4)	Oct	67.76	62.48	73.04	64.33	2.2293	N/A	N/A	46.0000			47.00	Option 1: VP60 = 1.88 VP70 = 2.33
Denatured Ethanol (RVP 4)	Nov	64.31	59.22	69.40	64.33	2.0739	N/A	N/A	46.0000			47.00	Option 1: VP60 = 1.88 VP70 = 2.33
Denatured Ethanol (RVP 4)	Dec	61.76	56.83	66.70	64.33	1.9594	N/A	N/A	46.0000			47.00	Option 1: VP60 = 1.88 VP70 = 2.33

TANKS 4.0.9d
Emissions Report - Detail Format
Detail Calculations (AP-42)

Carson 60000 36 - Internal Floating Roof Tank
Carson, California

Month:	January	February	March	April	May	June	July	August	September	October	November	December
Rim Seal Losses (lb):	8.5828	8.7921	9.0056	9.4170	9.7550	10.1236	10.6755	10.7661	10.3890	9.8600	9.1183	8.5776
Seal Factor A (lb-mole/ft-yr):	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000
Seal Factor B (lb-mole/ft-yr (mph)^n):	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000
Value of Vapor Pressure Function:	0.0355	0.0366	0.0375	0.0392	0.0406	0.0422	0.0445	0.0449	0.0433	0.0411	0.0380	0.0357
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	1.9665	2.0849	2.0501	2.1367	2.2074	2.2840	2.3980	2.4166	2.3390	2.2293	2.0739	1.9594
Tank Diameter (ft):	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000
Vapor Molecular Weight (lb/lb-mole):	48.0000	48.0000	48.0000	48.0000	48.0000	48.0000	48.0000	48.0000	48.0000	48.0000	48.0000	48.0000
Product Factor:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Withdrawal Losses (lb):	16.9209	16.9209	16.9209	16.9209	16.9209	16.9209	16.9209	16.9209	16.9209	16.9209	16.9209	16.9209
Number of Columns:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Effective Column Diameter (ft):	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Net Throughput (gal/mo.):	7,560,000.0000	7,560,000.0000	7,560,000.0000	7,560,000.0000	7,560,000.0000	7,560,000.0000	7,560,000.0000	7,560,000.0000	7,560,000.0000	7,560,000.0000	7,560,000.0000	7,560,000.0000
Shell Clingage Factor (bbl/1000 sqft):	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015
Average Organic Liquid Density (lb/gal):	6.5800	6.5800	6.5800	6.5800	6.5800	6.5800	6.5800	6.5800	6.5800	6.5800	6.5800	6.5800
Tank Diameter (ft):	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000
Deck Fitting Losses (lb):	55.3450	56.6941	58.0712	60.7241	62.9032	65.2803	68.8391	69.4237	66.9920	63.5805	58.7977	55.3124
Value of Vapor Pressure Function:	0.0355	0.0366	0.0375	0.0392	0.0406	0.0422	0.0445	0.0449	0.0433	0.0411	0.0380	0.0357
Vapor Molecular Weight (lb/lb-mole):	48.0000	48.0000	48.0000	48.0000	48.0000	48.0000	48.0000	48.0000	48.0000	48.0000	48.0000	48.0000
Product Factor:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Tot. Roof Fitting Loss Fact.(lb-mole/yr):	386.9000	386.9000	386.9000	386.9000	386.9000	386.9000	386.9000	386.9000	386.9000	386.9000	386.9000	386.9000
Deck Seam Losses (lb):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Deck Seam Length (ft):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Deck Seam Loss per Unit Length Factor (lb-mole/ft-yr):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Deck Seam Length Factor(ft/sqft):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Tank Diameter (ft):	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000
Vapor Molecular Weight (lb/lb-mole):	48.0000	48.0000	48.0000	48.0000	48.0000	48.0000	48.0000	48.0000	48.0000	48.0000	48.0000	48.0000
Product Factor:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total Losses (lb):	80.8487	82.4071	83.9977	87.0619	89.5790	92.3248	96.4355	97.1107	94.3019	90.3613	84.8369	80.8111

Roof Fitting/Status	Quantity	Roof Fitting Loss Factors KFa(lb-mole/yr)	KFb(lb-mole/(yr mph^n))	m	Losses(lb)
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	1	1.60	0.00	0.00	3.0698
Column Well (24-in. Diam.)/Built-Up Col.-Sliding Cover, Gask.	1	33.00	0.00	0.00	63.3152
Ladder Well (36-in. Diam.)/Sliding Cover, Gasketed	1	56.00	0.00	0.00	107.4440
Roof Leg or Hanger Well/Adjustable	32	7.50	0.00	0.00	485.0329
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1	6.20	1.20	0.94	11.8956
Automatic Gauge Float Well/Unbolted Cover, Gasketed	1	4.30	17.00	0.35	8.2502
Slotted Guide-Pole/Sample Well/Gask. Sliding Cover, w. Float, Wiper	1	21.00	7.90	1.80	40.2915
Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open	1	12.00	0.00	0.00	23.0237

TANKS 4.0.9d
Emissions Report - Detail Format
Individual Tank Emission Totals

Emissions Report for: January, February, March, April, May, June, July, August, September, October, November, December

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Carson, California

	Losses(lbs)				
Components	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Denatured Ethanol (RVP 4)	115.06	203.05	741.96	0.00	1,060.08