

Rodeo Renewed Project

Draft Revised Environmental Impact Report

County File No. CDLP20-02040
State Clearinghouse No. 2020120330

October 2023 Update



RODEO RENEWED PROJECT

Draft Revised Environmental Impact Report

October 2023 Update

Prepared for:



Contra Costa County
Department of Conservation and Development
30 Muir Road
Martinez, CA 94553

Prepared by:

Stantec Consulting Services Inc.
2890 Gateway Oaks Drive, Suite 200
Sacramento, CA 95833
www.stantec.com

Table of Contents

1	Introduction	1
1.1	Superior Court Statement of Decision	1
1.1.1	NuStar Rail Terminal	1
1.1.2	Cumulative Impacts -Unit 250 and NuStar Terminal.....	3
1.1.3	Odor Mitigation	3
1.2	Purpose of this Draft Revised EIR	3
1.3	Content of this Draft Revised EIR	3
1.3.1	Public Review of the Draft Revised EIR.....	4
1.3.2	How to Submit Comments on the REIR.....	4
2	Summary of Environmental Impacts	6
4	Environmental Setting, Impacts, and Mitigation Measures	8
4.3	Air Quality	8
4.3.9	Direct and Indirect Impacts of the Proposed Project.....	8
6	CEQA Statutory Sections.....	14
6.4	Cumulative Impacts	14
6.4.1	Projects Considered in the Cumulative Analysis	15
6.4.2	Cumulative Impact Analysis.....	20

List of Tables

Table 2-1.	Summary of Impacts and Mitigation Measures for the Rodeo Renewed Project.....	7
Table 4.3-10.	Summary of Potential Impacts	9
Table 6-1.	Geographic Context of Cumulative Impacts	15
Table 6-2.	Unit 250 Emissions (tons/yr, GHG in MT/yr)	16

List of Figures

Figure 4.3-3	Simplified Vapor Collection and Control System	10
--------------	--	----

List of Appendices

Appendix A	Superior Court Statement of Decision
Appendix B	Declarations
Appendix C	2022 Final EIR Revisions to the 2022 Draft EIR
Appendix D	BAAQMD Authority to Construct Permit
Appendix E	Phillips 66 Odor Prevention and Management Plan

Acronyms / Abbreviations

APCD	Air Pollution Control District
ATC	Authority to Construct
BAAQMD	Bay Area Air Quality Management District
bbls	barrels
bpd	barrels per day
CARB	California Air Resources Board
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CO ₂	Carbon dioxide
FID	Flame-ionization detector
GHG	Greenhouse Gas Emissions
HRA	Health risk assessment
H ₂ S	Hydrogen sulfide
LCFS	Low Carbon Fuel Standard
LDAR	Leak detection and repair
LTS	Less than significant
LTSM	Less than significant with mitigation
LUP	Land Use Permit
NM	NO _x Mitigation
NOP	Notice of Preparation
OEHHA	Office of Environmental Health Hazard Assessment
OPMP	Odor Prevention and Management Plan
PG&E	Pacific Gas and Electric Company
PID	Photoionization detector
POC	Precursor organic compounds
ppmv	parts per million by volume
ppmw	parts per million by weight
PRC	Public Resources Code
PTO	Permit to Operate
PTU	Pre-treatment Unit
ROG	Reactive organic gases
S	Sulfur

SCCAB	South Central Coast Air Basin
SFBAAB	San Francisco Bay Area Air Basin
SJVAB	San Joaquin Valley Air Basin
SO ₂	Sulfur dioxide
SU	Significant and unavoidable
TAC	Toxic air contaminants
ULSD	Ultra-low sulfur diesel fuel
US	United States
USDOT	US Department of Transportation
USEPA	US Environmental Protection Agency
VOC	Volatile organic compound

1 Introduction

The California Environmental Quality Act (CEQA) of 1970 (Public Resources Code [PRC] Sections 21000 et seq.) and the CEQA Guidelines (California Code of Regulations Title 14, Section 15000) require a public agency with discretionary authority to issue a permit or other approval to evaluate the environmental impacts of its action. Phillips 66 (applicant) submitted a Land Use Permit (LUP) application for its proposed Rodeo Renewed Project (Project) with the Contra Costa County Department of Conservation and Development in 2020. Approval or denial of the LUP is a discretionary action requiring review under CEQA (PRC Section 21080). As the CEQA Lead Agency with discretionary authority for approving the LUP (PRC Section 21067; California Code of Regulations Title 14, Section 15367), in May of 2022, the Board of Supervisors for Contra Costa County (County) certified an Environmental Impact Report (referenced herein as the “2022 EIR”) for the Project as having been prepared in compliance with CEQA and approved the Project. The 2022 EIR can be found in its entirety at the County’s website: <https://www.contracosta.ca.gov/RodeoRenewed> (link)

In June 2022, a CEQA lawsuit was filed in the Contra Costa County Superior Court challenging the certification of the 2022 EIR and the approval of the Project. (*Communities for a Better Environment, et al., v. County of Contra Costa, et al.*, Contra Costa County Superior Court Case No. N22-1080.) On July 21, 2023, the Superior Court, the Honorable Edward G. Weil presiding, issued a Statement of Decision in which the Superior Court remanded to the County for reconsideration three issues in the 2022 EIR (refer to Appendix A and discussion below). On August 23, 2023, the Superior Court entered judgment and issued a peremptory writ of mandate to the County to decertify the 2022 EIR and to conduct further environmental review in compliance with CEQA to remedy the three issues identified in the Statement of Decision. On October 12, 2023, the Superior Court reaffirmed its Statement of Decision, allowing the Land Use Permit to remain in place and allowing Project construction activities, and ruled that the judgment would be modified to enjoin Project operations until further order of the Court. The Superior Court did not identify any other CEQA violations, and the remaining content of the 2022 EIR is valid.

1.1 SUPERIOR COURT STATEMENT OF DECISION

The July 21, 2023 Statement of Decision identified three specific issues to be remanded to the County for further consideration in compliance with CEQA:

- Reconsider NuStar terminal as part of the project description;
- Reconsider Unit 250 as part of the cumulative impact analysis; and
- Reconsider the mitigation measures for the Project’s odor impacts.

1.1.1 NuStar Rail Terminal

In the Statement of Decision, the Superior Court found that the failure to consider changes made in 2021 to the NuStar facility in the 2022 EIR, constituted improper piecemealing and directed the County to reconsider the NuStar facility as part of the Rodeo Renewed project description. The Superior Court stated, “that the changes to the NuStar terminal increased its renewable feedstock capacity well beyond that which was required for Unit 250,” and that “. . . the failure to consider the changes to the NuStar

1 Introduction

facility in the EIR at issue here was improper piecemealing.” The Superior Court also stated that “the record regarding NuStar is limited and with more information it may be possible to show that NuStar’s changes can be considered a separate project but on the current record the Court cannot make this finding.”

Appendix B to this Draft Revised EIR (Draft REIR) includes declarations submitted to the Superior Court from Jolie Rhinehart of Phillips 66, Kyle Oppliger of NuStar, and Lashun Cross of the County, regarding the NuStar rail facility and the Rodeo Renewed Project. As stated in the Rhinehart declaration, Phillips 66 has received on an annualized basis approximately 12,000 barrels per day (bpd) of pretreated renewable feedstocks from a pipeline that connects its Rodeo facility to the NuStar facility since 2021. (Rhinehart Declaration, p. 2.) This entire 12,000 bpd is received for use in the Rodeo facility’s Unit 250. (AR053660; Rhinehart Declaration, pp. 2–3; Cross Declaration, pp. 2-3. Unit 250 is a distinct operational unit of the Rodeo facility that is not a part of the Rodeo Renewed Project. (Statement of Decision, p. 11; AR053660; Rhinehart Declaration, pp. 2–3; Cross Declaration, pp. 2-3.) The Rodeo facility is not receiving any materials from NuStar’s rail facility other than the 12,000 bpd that are processed in Unit 250. (Rhinehart Declaration, pp. 2–3; Oppliger Declaration, p. 3; Cross Declaration, p. 2.) As explained in the Rhinehart Declaration, “[t]he Rodeo Renewed Project will not process pretreated feedstocks from the NuStar rail facility or any additional materials from the NuStar rail facility,” and “[a]ny capacity the NuStar rail facility has above the current 12,000 bpd is not planned to be used by the Rodeo facility or the Rodeo Renewed Project.” (Rhinehart Declaration, p. 3.) The County has confirmed that “the Project has never been expected to receive and will not be receiving feedstocks from the NuStar facility.” (Cross Declaration, p. 2.)

Rather, the Project will be receiving feedstocks solely from the following modes of transportation: tanker vessels, barges, Phillips 66’s refinery railcar loading and unloading rack, and truck trips, as listed in Table 3-2 of the EIR (AR053732), none of which bear a relationship to the NuStar facility. (Cross Declaration, pp. 2–3; Rhinehart Declaration, p. 3.) The County has confirmed through a review of its files that “the EIR’s description of the Project’s transportation sources as shown on Table 3-2 of the EIR remains accurate, and there is nothing in the County’s files that would indicate there will be sourcing of product for the Project from the NuStar facility.” (Cross Declaration, p. 3.) The County has also confirmed “the changes to the NuStar facility to be unrelated to the Project and understand that the Project will in no way rely on the NuStar facility for any portion of its feedstocks or in any other capacity.” (Cross Declaration, p. 3.)

The 12,000 bpd for Unit 250 was disclosed in the 2022 EIR and has not changed (see Section 3.7, Project Operation, page 3-23 of the 2022 EIR). Once operational, the Rodeo Refinery would supply up to 107,000 bpd of renewable fuels (67,000 bpd) and petroleum-based transportation fuels or gasoline (40,000 bpd). Of the 67,000 bpd of renewable fuels that would be produced, 55,000 bpd would occur as a result of the Project. This amount would be in addition to the Rodeo Refinery’s existing capability (as of 2021) of producing 12,000 bpd from pretreated feedstocks using Unit 250 (previously used to process petroleum-based feedstocks).

The above information demonstrates that the NuStar rail facility is a separate project and is not part of the Rodeo Renewed Project. Therefore, in reconsidering the NuStar terminal as directed by the Superior Court, the County has determined that the project description for the Rodeo Renewed Project remains the same as that set forth in 2022 EIR and is not being revised or recirculated.

1 Introduction

1.1.2 Cumulative Impacts -Unit 250 and NuStar Terminal

Section 6.4, Cumulative Impacts of this Draft REIR includes a new cumulative impacts analysis that replaces Section 6.4 in the 2022 EIR. The new analysis incorporates information regarding Unit 250 as directed by the Superior Court. Given that the NuStar terminal is not part of the Rodeo Renewed Project, the County has determined that the NuStar terminal should be considered as a part of potential cumulative impacts. Therefore, Section 6.4 also incorporates and analyzes information regarding the NuStar terminal.

1.1.3 Odor Mitigation

Section 4.3, Air Quality of this REIR, provides new information regarding the Project's odor mitigation that replaces Section 4.3, Air Quality of the 2022 EIR as directed by the Superior Court.

1.2 PURPOSE OF THIS DRAFT REVISED EIR

The County has prepared this REIR to address the three issues identified in the Statement of Decision and to conduct further environmental review in compliance with CEQA as directed by the Superior Court. Consistent with the peremptory writ of mandate issued by the Superior Court, the revised EIR need only address those issues specified in the Statement of Decision as necessary to achieve compliance with CEQA. Except for the three issues specified in the Statement of Decision, the remainder of the 2022 EIR previously prepared and certified by the County was either not challenged or was found by the Court to be in compliance with CEQA, and therefore remains valid. The Final 2022 EIR (State Clearinghouse No. 20200120330), to the extent it does not conflict with the additional information provided in this Draft REIR, is incorporated herein by reference. As required by CEQA Guidelines Section 15088.5(g), revisions made to the previously circulated 2022 Draft EIR are summarized in Appendix C (Final 2022 EIR, Chapter 4, County-Initiated Updates and Errata to the Draft EIR).

The chapters and sections included in this Draft REIR are those needed to address the deficiencies identified in the Statement of Decision and to provide sufficient additional information so that the reader can understand and assess the REIR's contents. Pursuant to CEQA Guidelines Section 15088.5(c), recirculation is limited to those chapters and sections and the additional information contained in this Draft REIR, namely portions of Section 4.3, Air Quality and Section 6.4, Cumulative Impacts. Analyses in the 2022 Final EIR that were not identified in the Statement of Decision and peremptory writ of mandate as requiring reconsideration have not been revised and are not being recirculated. Pursuant to CEQA Guidelines Section 15088.5(f)(2), reviewers are hereby notified that reviewers should limit their comments to the revised chapters or sections of this Draft REIR. The content of this Draft REIR provides sufficient detail and clarity such that the public and decision makers can make an informed decision regarding the adequacy of the issues discussed in this REIR. Pursuant to CEQA Guidelines Section 15088.5(f)(2)(ii), written responses will be prepared only to comments received regarding the contents of the REIR. Responses to all comments received during the review period will be provided in a separate document.

1.3 CONTENT OF THIS DRAFT REVISED EIR

This document consists of the following chapters and sections. All chapter and section numbering are consistent with the chapter and section numbering the 2022 EIR.

1 Introduction

- **Chapter 1, Introduction.** Provides an overview of the Draft REIR and CEQA process, including a summary of the Superior Court decision, purpose of the REIR, a summary of the contents of the REIR, and public review information for the REIR.
- **Chapter 2, Summary of Environmental Impacts.** Provides updates to the summary of impacts and mitigation measures identified in Section 4.3.
- **Section 4.3, Air Quality.** Provides an assessment of the proposed Project's odor impacts and identifies mitigation measures.
- **Section 6.4, Cumulative Impacts.** Provides analysis of the proposed Project's cumulative impacts.
- **Appendices.**

1.3.1 Public Review of the Draft Revised EIR

Consistent with Section 15205 of the CEQA Guidelines, the Draft REIR for the Project is subject to a public review period. Section 21091(e) of the PRC specifies if an EIR is submitted to the State Clearinghouse for review, the review period shall be a minimum of 45-days. This Draft REIR is being released for a 45-day public review period, beginning Tuesday, October 24, 2023 to Friday, December 8, 2023, until 4:00 p.m. During the 45-day review period the REIR is available at the following locations:

- Contra Costa County Department of Conservation and Development located at 30 Muir Road Martinez, between 8:00 a.m. and 5:00 p.m. Monday through Thursday, and 8:00 a.m. and 4:00 p.m. on Friday.
- County website: <https://www.contracosta.ca.gov/3383/Conservation-Development>
- Pleasant Hill Library, 100 Gregory Ln, Pleasant Hill, CA
- Rodeo Library, 220 Pacific Avenue, Rodeo, CA
- San Pablo Library, 13751 San Pablo Avenue, San Pablo, CA
- Crockett Library, 991 Loring Avenue, Crockett, CA

1.3.2 How to Submit Comments on the REIR

To comment on the Draft REIR, please send comments to the Contra Costa County of Department of Conservation and Development, Community Development Division before the end of the comment period specified in the Notice of Availability:

Contra Costa County Department of Conservation & Development
Community Development Division
30 Muir Road, Martinez, California 94553
Attention: Joseph Lawlor, Senior Planner
or Email: joseph.lawlor@dcd.cccounty.us

All comments received on the Draft REIR during the public review period will be addressed in the Final REIR. The Final REIR will include all comments received and the County's responses, as well as any changes to the text of the Draft REIR. The Draft REIR and Final REIR, as well as the portions of the 2022

1 Introduction

EIR determined by the Superior Court to be in compliance with CEQA, will comprise the EIR for the project. The EIR will be considered anew by Contra Costa County for certification. Certification entails determination by Contra Costa County, as Lead Agency, that the EIR has been completed in compliance with CEQA, that the decision-making body reviewed and considered the information in the EIR, and that the EIR reflects its independent judgment. If the EIR is certified, Contra Costa County will file a return to the writ specifying the actions taken to comply with the writ and take necessary actions to discharge the writ..

2 Summary of Environmental Impacts

Under CEQA, a significant impact on the environment is defined as a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the proposed Project. The proposed Project has the potential to generate significant environmental impacts. Table 2-1 summarizes the conclusions of the environmental analysis contained in this Draft Revised EIR (Draft REIR) by providing a table of impacts and mitigation measures identified.

In response to the Superior Court's Statement of Decision, this chapter identifies the significant impact and mitigation measures related to odor, addressing each Project phase including construction, demolition, and operation and maintenance. For all other impacts and mitigation measures of the Project, refer to the 2022 EIR which can be found in its entirety at the County's website: <https://www.contracosta.ca.gov/RodeoRenewed> (link)

2 Summary of Environmental Impacts

Table 2-1. Summary of Impacts and Mitigation Measures for the Rodeo Renewed Project

Environmental Impacts	Construction and Demolition				Transitional	Operation and Maintenance			
	Rodeo Site	Carbon Plant Site	Santa Maria Site	Pipeline Sites	Rodeo Refinery	Rodeo Site	Carbon Plant Site	Santa Maria Site	Pipeline Sites
4.3 AIR QUALITY									
IMPACT 4.3-1 Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or state ambient air quality?	LTSM	LTSM	LTS	LTS	LTSM	NI	NI	NI	NI
	Mitigation Measure: AQ-1	Mitigation Measure: AQ-1	Mitigation: None	Mitigation: None	Mitigation Measure: AQ-1	Mitigation: n/a	Mitigation: n/a	Mitigation: n/a	Mitigation: n/a
IMPACT 4.3-2 Would the project result in operational emissions of criteria pollutants?	LTSM	LTSM	LTS	LTS	LTSM	LTS	NI	NI	NI
	Mitigation Measure: AQ-2	Mitigation Measure: AQ-2	Mitigation: None	Mitigation: None	Mitigation Measure: AQ-2	Mitigation: None	Mitigation: n/a	Mitigation: n/a	Mitigation: n/a
IMPACT 4.3-3 Would the project expose sensitive receptors to substantial pollutant concentrations?	LTS	LTS	LTS	LTS	LTS	SU – Rail Transport Outside SFBAAB	LTS	LTS	LTS
	Mitigation: None	Mitigation: None	Mitigation: None	Mitigation: None	Mitigation: None	Mitigation: n/a	Mitigation: one	Mitigation: None	Mitigation: None
IMPACT 4.3-4 Would the Project expose sensitive receptors to substantial pollutant concentrations?	LTS	NI	LTS	NI	NI	LTS	NI	NI	NI
	Mitigation: None	Mitigation: n/a	Mitigation: None	Mitigation: n/a	Mitigation: n/a	Mitigation: None	Mitigation: n/a	Mitigation: n/a	Mitigation: n/a
IMPACT 4.3-5 Would the Project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	LTS	NI	LTS	LTS	NI	LTSM	NI	NI	NI
	Mitigation: None	Mitigation: n/a	Mitigation: None	Mitigation: None	Mitigation: n/a	Mitigation Measure: AQ-4 and AQ-5	Mitigation: n/a	Mitigation: n/a	Mitigation: n/a

Notes: LTS = Less than significant impact
 LTSM = Less than significant impact with mitigation
 n/a = not applicable
 NI = No impact
 SU = Significant and unavoidable impact

4 Environmental Setting, Impacts, and Mitigation Measures

4.3 AIR QUALITY

Section 4.3, Air Quality of the 2022 EIR described the existing environmental setting and regulatory setting related to air quality, defined the CEQA baseline and evaluated potential impacts that could result from implementation of the Project at the four Project sites including the Rodeo Refinery, Carbon Plant, Santa Maria Site, and Pipeline Sites.

As identified in the Statement of Decision, the Superior Court found that the 2022 EIR improperly deferred mitigation of potential odor impacts. This deficiency is addressed by the preparation and distribution of this Draft Revised EIR (Draft REIR). This section of the Draft REIR provides new information regarding the Project's odor mitigation that replaces those relevant sections of Section 4.3, Air Quality of the 2022 EIR. The section maintains the same section numbering (i.e., Section 4.3), title, and general organization as the 2022 EIR to simplify comparisons across the two documents. However, this section only addresses the issues necessary to address the inadequacies identified in the Statement of Decision. Therefore, Impact 4.3-5 addressing odor emissions is the only section of the Air Quality section that is revised. All other sections including the environmental setting, regulatory setting, Project setting, Significance Criteria, CEQA Baseline, Approach to Analysis, Discussion of No Air Quality Impacts are not repeated here. Those sections, and the information contained therein, were adequately addressed in the 2022 EIR and are not related to or impacted by the changes responding to the deficiencies identified in the Statement of Decision. The 2022 EIR can be found in its entirety at the County's website:

<https://www.contracosta.ca.gov/RodeoRenewed> (link)

4.3.9 Direct and Indirect Impacts of the Proposed Project

Table 4.3-10 summarizes the potential air quality impacts, as well as significance determinations after mitigation.

Table 4.3-10. Summary of Potential Impacts

Impact	Significance Determination		
	LTS	LTSM	SU
Impact 4.3-5. Would the Project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			
Rodeo Refinery, Santa Maria and Pipeline Sites			
<i>Construction/Demolition Including Transitional Phase^a</i>	✓		
Rodeo Refinery			
<i>Operation and Maintenance</i>		✓	
Santa Maria and Pipeline Sites			
<i>Operation and Maintenance</i>	✓		

Notes: LTS = Less than significant, no mitigation proposed
 LTSM = Less-than-significant impact with mitigation
 SU = Significant and unavoidable

^a. Transitional phase applies only to Rodeo Refinery

IMPACT 4.3-5

d. Would the Project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Construction/Demolition, Including Transitional Phase: Less Than Significant, No Mitigation Proposed

Rodeo Refinery, Santa Maria Site, and Pipeline Sites

Decommissioning of petroleum processing equipment would involve venting and capture of gases and draining and recovery of liquids. These steps could result in some fugitive releases of odorous compounds; however, such release would be singular events for a particular equipment item, and releases would permanently cease upon completion of work. Therefore, it is not expected that potential and short-term odors would adversely affect a large number of people during construction and demolition activities at all Project sites. The impact would be less than significant.

Operation and Maintenance: Less-than-Significant Impact with Mitigation

Rodeo Refinery

Under existing conditions, some substances present in products and byproducts of the petroleum crude oil refining processes and in materials used by the Rodeo Refinery, the Santa Maria Site, and the Pipeline Sites are known to cause odors, such as hydrogen sulfide (H₂S), sulfur dioxide (SO₂), and other reduced-sulfur compounds (e.g., mercaptans), ammonia, and some organic compounds, including benzene, naphthalene, and toluene. The elimination of crude oil throughput and refining of petroleum-based feedstocks during the Project would result in a substantial reduction of sulfur compounds and would therefore likely have a beneficial impact on emissions associated with common refinery odors. Conversely, under the Project, the Rodeo Facility would be converted to production of transportation fuels from renewable feedstocks as refining of petroleum feedstocks would be discontinued. Compared to a typical petroleum refinery, the new renewable feedstocks do not contain many of the sulfur and organic compounds that typically cause refinery-type odor

4 Environmental Setting, Impacts, and Mitigation Measures

concerns. However, the renewable feedstocks can create odors similar to an animal and/or food processing facility unless properly managed through good engineering practices during project development combined with an odor management plan after Project completion. These principles are currently used at the Rodeo Refinery and will continue after the completion of the Project.

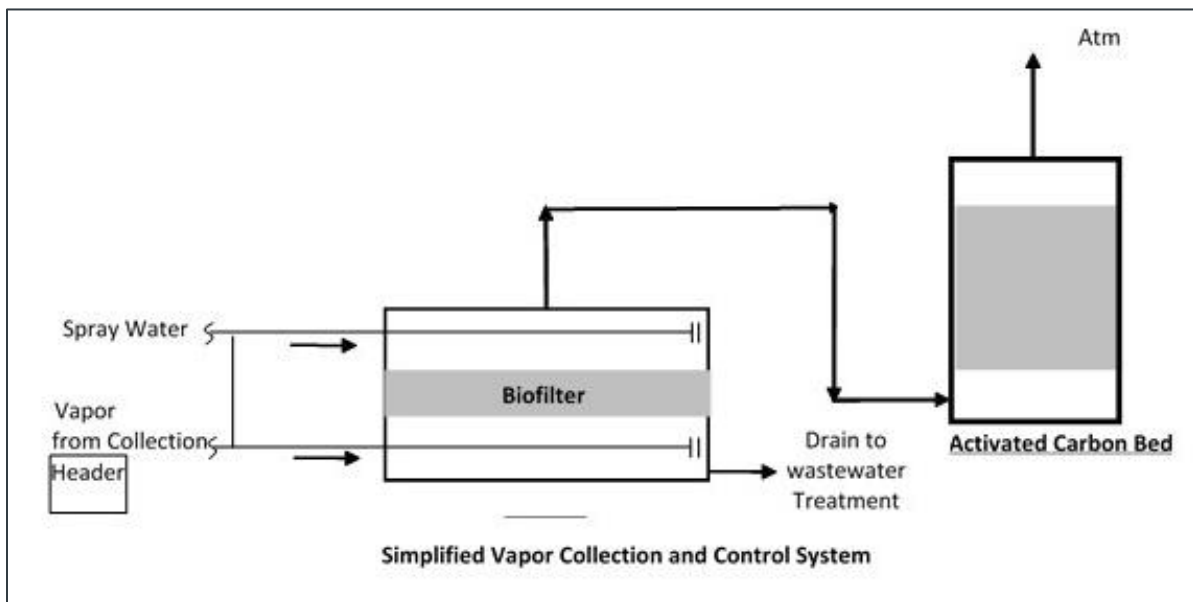
The key element of controlling odors is to engineer control measures into the facility design. Engineered odor control strategies include covering potential odor-generating equipment with sealed covers, using fixed roof or floating roof tanks, reducing fugitive emissions, using scrubbing and incineration systems, and minimizing system upsets.

For the Project, the primary areas where engineering controls for controlling odors are being designed include Tank 100, where renewable feedstocks are unloaded from the rail terminal and at the PTU. This equipment would handle and store the feedstocks prior to treatment.

Odor control at the railcar unloading racks includes a sealed header system tied to activated carbon canisters. All tallow feedstocks would be routed to Tank 100, which would be repurposed with a new fixed roof and nitrogen gas blanket in the vapor space. The nitrogen blanket gas would be discharged through activated carbon canisters for odor control prior to release to atmosphere. Other renewable feedstock with the potential to generate odors would be stored in the existing facility tankage that currently include odor treatment and abatement facilities that would ensure the control of objectionable odorous emissions from the renewable feedstocks.

The PTU is a fully enclosed unit that includes a vapor collection system and vapor treatment consisting of a biofilter followed by an activated carbon adsorption bed. The biofilter would reduce most odor constituents from the collected vapor, and any residual components discharged from the biofilter would be further removed by the activated carbon bed. A simplified Block Flow Diagram for the system is shown in Figure 4.3-3, followed by a discussion of how the system abates odors.

Figure 4.3-3 Simplified Vapor Collection and Control System



4 Environmental Setting, Impacts, and Mitigation Measures

The system would withdraw vapors from the head space of all ambient liquid tanks/vessels in the PTU that could have potential odor-causing vapors. Equipment operated under vacuum would also have the vapor discharged from the vacuum blowers and directed to the biofilter and activated carbon for odorous constituent removal.

The biofilter would use microorganisms to degrade organic constituents in the vapor into odor-free CO₂ and water. The biofilter would contain media allowing for the growth of microorganisms which degrade odor causing constituents. The media would be compost peat, wood chips, tree bark, or proprietary materials supplied by the biofilter provider. The media provides a large surface area, nutrients, and moisture for microbial activities and adsorption of odorous molecules. The treated vapor would be discharged from the nozzle located at the upper section of the biofilter to the activated carbon bed for further treatment. A water seal design provided on the biofilter drain would prevent the release of untreated vapor. The proposed biofilter technology is widely accepted for its high performance in both industrial and municipal applications.

The activated carbon beds used to remove odorous constituents from vapor streams are designed to provide sufficient abatement alone; however the proposed 2-stage system with biofilter and activated carbon bed would provide odor abatement during steady-state operations that minimizes the generation of solid waste. The design of the system also allows for maintenance activities at the biofilter with redundancy to minimize odors during those periods.

Impact Summary

Construction and operational emissions of petroleum-based odorous gases such as H₂S, SO₂, other reduced-sulfur compounds, ammonia, and certain organic compounds would permanently cease upon completion of the conversion to renewable fuels processing. The project includes equipment to minimize potential odors associated with processing renewable feedstocks. Nevertheless, unforeseen organic-based odorous gases, could be emitted from the repurposed facility from time-to-time. Therefore the impact from odorous emissions would be considered a significant impact. Mitigation Measure AQ-4 requires implementation of the Odor Prevention and Management Plan. Mitigation Measure AQ-5 imposes operating requirements in addition to the conditions of the BAAQMD air permit. With implementation of Mitigation Measures AQ-4 and AQ-5, odor impacts would be less than significant with mitigation incorporated (LTSM).

In addition to the mitigation measures, potential odor emissions are governed by BAAQMD permit conditions. In January 2023, the BAAQMD issued an Authority to Construct (ATC) for Permit Application No. 31157, Plant No. 21359 for the Project (Appendix D). The ATC set forth the conditions to construct the Project, which following completion of the Start-up Notification and required certifications, are expected to be conditions of the associated Permit to Operate (PTO). The permit includes operating requirements related to odor prevention and management, including those for Tank 100 and other storage tanks, and those for the PTU. Specifically, the permit requires submittal to BAAQMD of the final design drawings and specifications for the equipment including the biofilters and activated carbon vessels used for odor control prior to issuance of the PTO (Condition 27646FW, 3, p. 10 of 116). The BAAQMD permit also requires that any odorous emissions sources from the PTU and associated tanks be “abated” by the biofilters and activated carbon vessels, along with the other conditions listed (Condition 27649, 1-19, pp. 53-55 of 116). Pursuant to BAAQMD’s Regulation 7, Condition 15 requires that: “The owner/operator of S-600 PTU, A-622 through A-625 shall not discharge any odorous substance which causes the ambient air at or beyond the property line to be odorous.” (Condition 27649, 15, p. 55 of 116.) Condition 27649, 16 requires the owner/operator to “maintain, update and operate the Odor Prevention and Management Plan as

4 Environmental Setting, Impacts, and Mitigation Measures

reviewed and approved by the County of Contra Costa.” (Condition 27649, 16, p. 55 of 116.) Violation of these conditions could result in enforcement action by BAAQMD.

The applicant has prepared the Odor Prevention and Management Plan (OPMP) as required by the ATC and Land Use Permit for the project, which is provided in Appendix E. The OPMP provides background information regarding the Project (Section 1.0) and provides a basis for the design of odor management controls (Section 2.0), including the vapor collection system, the biofilters, and the activated carbon beds. In addition to specific design controls, the OPMP includes an odor monitoring program, including procedures to identify and confirm the presence of odors through employee observations and self-inspections, and procedures for investigating “all” offsite odor complaints (Section 3.0). Further, odor prevention and management would be supported by the facility’s existing Leak Detection and Repair (LDAR) programs and its Fenceline Monitoring program, as both can detect unforeseen gaseous fugitive emissions that may contain odorous compounds.

Mitigation Measure AQ-4: Implement Odor Prevention and Management Plan

Phillips 66 shall implement the Odor Prevention and Management Plan (OPMP) (Appendix E). The OPMP shall be an integrated part of daily operations at the Rodeo Site, to effect diligent identification and remediation of any potential odors generated by the Facility.

Mitigation Measure AQ-5:

Rail Offloading Rack Mitigation

1. An audio, visual, and olfactory inspection (AVO) of the rail offloading rack area shall be initiated by operating personnel within 1 hour after receiving an offsite odor complaint, or as soon as practical within the constraints of proper safety protocols and site logistics after receiving an offsite odor complaint. Equipment or offloading activities determined or suspected to be responsible for odorous emissions shall be taken out of service and/or unloading will be suspended if the offsite odor impacts cannot be mitigated as soon as practicable and no later than 24 hours of receiving the offsite odor complaint.

Tank 100 Mitigation

1. Tank 100 shall have at a minimum two activated carbon vessels, arranged in parallel, connected at all times, while two additional spare vessels shall be connected and on standby for backup odor control.
2. Monitoring at the outlet vent of the Tank 100 carbon vessels shall be conducted within 1 hour after receiving an offsite odor complaint, or as soon as practical within the constraints of proper safety protocols and site logistics. Unspent carbon vessels shall be placed in service if a measurement of greater than 10 parts per million by volume (ppmv) volatile organic compound (VOC) is detected at the atmospheric outlet of the last in-service carbon vessel. Monitoring shall be conducted with a photoionization detector (PID), flame-ionization detector (FID), or other BAAQMD approved methods. Equipment identified as directly causing odorous emissions will be taken out of service as soon as practicable and no later than 24 hours of receiving the offsite odor complaint if emissions cannot be mitigated or otherwise controlled.

Renewable Feedstock Storage Mitigation

4 Environmental Setting, Impacts, and Mitigation Measures

1. An AVO inspection of the renewable storage tanks shall be initiated by operating personnel within 1 hour after receiving an offsite odor complaint, or as soon as practical within the constraints of proper safety protocols and site logistics. Sources or processes determined or suspected to contribute to offsite odors shall be mitigated or otherwise controlled as soon as practicable and no later than 24 hours of receiving the offsite odor complaint.

Pretreatment Unit (PTU) Mitigation

1. The PTU and associated equipment including the spent water tank, dissolved air flotation, process tanks, and collection tanks, will be connected to the Biofilter and Activated Carbon Vessels at all times while in operation to prevent the release of odorous gases that may cause offsite odors.
2. Monitoring at the outlet vent of the Biofilters and Activated Carbon Vessels shall be completed by operating personnel within 1 hour after receiving an offsite odor complaint, or as soon as practical within the constraints of proper safety protocols and site logistics. Unspent carbon vessels shall be placed in service if a measurement of greater than 10 ppmv VOC is detected at the atmospheric outlet of the last in-service carbon vessel. Monitoring shall be conducted with a PID, FID, or other BAAQMD approved methods.
3. An AVO inspection of the PTU process area shall be initiated by operating personnel within 1 hour after receiving an offsite odor complaint, or as soon as practical within the constraints of proper safety protocols and site logistics. Equipment identified as directly causing odorous emissions will be taken out of service as soon as practicable and no later than 24 hours of receiving the offsite odor complaint if emissions cannot be mitigated or otherwise controlled.

6 CEQA Statutory Sections

CEQA requires an EIR to consider the significant environmental effects of a proposed project (CEQA Guidelines Section 15126.2). Direct and indirect, short- and long-term effects of the Project are analyzed in Chapter 4 of the 2022 EIR, and Section 4.3, Air Quality in this Draft Revised (Draft REIR). Chapter 6 of the 2022 EIR considers significant unavoidable impacts in Section 6.1, significant irreversible environmental effects in Section 6.2, growth-inducing impacts in Section 6.3, cumulative impacts in Section 6.4, and effects found not to be significant in Section 6.5.

This chapter of the Draft REIR only addresses the issues necessary to address the deficiencies identified in the Statement of Decision. Therefore, Section 6.4, Cumulative Impacts is the only section of Chapter 6 that is revised. All other sections of Chapter 6 are not repeated here. Those sections, and the information contained therein, were adequately addressed in the 2022 EIR and are not related to or impacted by the changes responding to the deficiencies identified in the Statement of Decision. The 2022 EIR can be found in its entirety at the County's website: <https://www.contracosta.ca.gov/RodeoRenewed> (link)

As identified in the Statement of Decision (Appendix A), the Superior Court found that the 2022 EIR did not disclose the cumulative impacts of Unit 250. This section includes a new cumulative impacts analysis that replaces Section 6.4, Cumulative Impacts in the 2022 EIR. The new analysis incorporates information regarding Unit 250 as directed by the Superior Court. As discussed in the introduction of this document, the NuStar terminal is not part of the Rodeo Renewed Project (refer to Chapter 1, Section 1.1.1, NuStar Rail Terminal), thus, the County has determined that the NuStar terminal should also be considered as a part of potential cumulative impacts. Therefore, Section 6.4 also incorporates information regarding the NuStar terminal.

6.4 CUMULATIVE IMPACTS

Public Resources Code Section 21083(b)(2) states that a significant effect on the environment includes the possible effects of a project "that are individually limited but cumulatively considerable." As defined by CEQA, "cumulatively considerable" means that the incremental effects of an individual 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." Stated another way, "a cumulative impact is created as a result of a combination of the project evaluated in the EIR together with other projects causing related impacts" (CEQA Guidelines Section 15130(a)(1)). The CEQA Guidelines require that:

- Cumulative impacts shall be discussed when they may be significant;
- The discussion may be more general than that for the individual project impacts, but that the discussion should reflect the potential extent, severity, and probability of the impact;
- The cumulative impact analysis may be based on either a list of past, present, and probable future projects or a summary of projections from an adopted general plan or other adopted planning document; and
- Reasonable options for mitigating or avoiding the project's contribution to significant cumulative impacts shall be discussed, noting that for some cumulative impacts the only feasible mitigation may involve the adoption of ordinances or regulations rather than the imposition of conditions on a project-by-project basis.

The approach to the cumulative analysis for the Project uses a combination of specific projects in the vicinity of the sites, and projections contained in adopted local and regional plans or related planning documents, to determine whether any significant cumulative impact would occur.

In reaching a conclusion for each resource area, five factors were considered:

1. The geographic scope of the cumulative impact area for that resource;
2. The timeframe within which Project-specific impacts could interact with the impacts of other projects;
3. Whether a significant cumulative impact would result from the other projects identified in combination with the Project;
4. Whether the incremental impacts of the Project, before mitigation, are cumulatively considerable; and
5. The ability of Project-specific mitigation measures, including those identified for direct and indirect impacts, to render the Project’s incremental impact less than cumulatively considerable.

6.4.1 Projects Considered in the Cumulative Analysis

Incremental Project-specific impacts could interact with the impacts of other reasonably foreseeable future projects. Since no physical changes would occur at the Pipeline Sites, and Project activities involve only cleaning and decommissioning or being sold, resulting in no impacts, the Pipeline Sites are not evaluated in the cumulative impact analysis.

In the vicinity of the Rodeo Refinery and Santa Maria Site, future projects could cause similar, potentially overlapping impacts with those of the Project. The environmental effects of the proposed Project were considered in conjunction with the potential environmental effects of buildout anticipated for the Project areas, which includes other projects within a 3-mile radius of the Rodeo Refinery and Santa Maria Site.

Table 6-1. Geographic Context of Cumulative Impacts

Resource Topic	Geographic Area
Aesthetics	Local – area surrounding Project sites that encompass public viewpoints
Air Quality	Regional - for pollutant emissions that have regional effects, combined air basins within the following air districts were used: BAAQMD; SJVAPCD; San Luis Obispo County Air Pollution Control District; and Santa Barbara County Air Pollution Control District Local/Immediate Vicinity – a refined area was used to evaluate areas with highly localized air emissions, such as NOx and PM
Biological Resources	Regional - within 3-mile radius for more localized effects
Cultural Resources	Local/Immediate Vicinity – area of potential effect (APE)
Energy Conservation	Regional – energy grids serving Project Sites
Geology and Soils	Local/Immediate Vicinity
Greenhouse Gas Emissions	Statewide and Global

Resource Topic	Geographic Area
Hazards and Hazardous Materials	Regional and Local
Hydrology and Water Quality	Regional and Local
Land Use and Planning	County
Noise and Vibration	Local/Immediate Vicinity
Tribal Cultural Resources	Local/Immediate Vicinity
Wildfire	Local/Immediate Vicinity
Solid Waste	Local – service areas
Environmental Justice	Local/Immediate Vicinity

The following development projects were identified as either having been approved or are in the environmental review stages.

6.4.1.1 *Contra Costa County*

Phillips 66 Rodeo Unit 250 Hydrotreater (File# CDPC20-00010) is a component of the existing Rodeo Site equipment. The unit was altered to allow it to produce ultra-low sulfur diesel fuel from renewable feedstocks, as well as producing ultra-low sulfur diesel fuel from petroleum feedstocks¹. The physical alterations to Unit 250 were completed in 2021 and included changes in piping dimensions, minor added piping, modifications of various metering, sensing, and control components, and a new air-cooled heat exchanger. Associated tanks, a process heater, and the Unit 230 fractionator were operationally altered in that they now handle or store renewable feedstocks and fuels in addition to conventional crude-oil-based commodities, although no physical modifications were made. None of the changes resulted in liquid pumping capacity increases, changes to gas compressors, or changes to upstream or downstream equipment that resulted in any increases in capacities or permitted emissions. There was no increase in the achievable capacity of Unit 250 due to the changes. Unit 250 is capable of producing approximately 12,000 bpd of ultra-low sulfur diesel from renewable feedstocks, on an annual average basis. Because the alterations to allow renewable processing were not completed until 2021, no renewable diesel was produced in the baseline year of 2019; however, ultra-low sulfur diesel from petroleum feedstocks was produced by Unit 250 in 2019.

The differences in criteria pollutant emissions between Unit 250's processing of petroleum-based feedstocks and renewable feedstocks is small, as renewable fuels processing operates within the same range of operating parameters as petroleum-based production. Using a five-year average (2017-2021) of Unit 250's emissions, the 2021/2022 air emissions from Unit 250 processing renewable feedstocks for all criteria pollutants are approximately the same, with NO_x and SO₂ increasing by 0.06 and 0.09 tons per year, respectively, and CO, precursor organic compounds (POC) and PM₁₀/PM_{2.5} decreasing by 0.01, 0.05 and 0.08 tons per year (see Table 6-2).

Table 6-2. Unit 250 Emissions (tons/yr, GHG in MT/yr)

¹ Ultra-low sulfur diesel fuel (ULSD) contains not more than 15 parts-per-million by weight (ppmw) total sulfur (S).

Unit 250		NO _x	SO ₂	CO ¹	POC	PM _{10/2.5}	GHGs (MT/yr) ²
12-month Operational Period	5/2021 - 4/2022	0.58	0.80	0.27	0.27	0.38	7,167
5-Year Average	2017-2021	0.52	0.71	0.28	0.33	0.45	9,079
Unit 250 Delta		0.06	0.09	-0.01	-0.05	-0.08	-1,912

¹ CO calculated using methodology used in 2019 Reg 12-15 inventory.

² MT/yr = metric tons per year

In addition, the GHG emissions following the Unit 250 renewable fuels conversion decreased by 1,912 metric tons (MT) per year CO_{2e}. This decrease is 0.18% of the total GHG emissions for facility stationary sources (Draft EIR, Table 4.8-5).

- Application Status: The project was reviewed by the County for conformance with County requirements. Building permits were issued for the modifications and the project is operational.

Crockett Waterfront Park (File# CDLP19-02017) is an application for an LUP located at 1909 Dowrelia Drive in Crockett. The project includes a Land Use Permit (LUP) application to establish a public park on a 3-acre lot and is a component of the Crockett Recover the Waterfront plan.

- Application Status: The project is currently under environmental review.

Shore Terminals LLC (NuStar) Selby Terminal (File# CDPC20-00009) is a project that included modifications to the Shore Terminals LLC (NuStar) Selby Terminal to accommodate receiving soybean oil and other pre-treated renewable feedstocks at the terminal's existing rail facility in addition to the other materials that NuStar has historically transferred through the facility. The main features of the project are:

- Installation of new piping, metering, pumps and related equipment at the existing rail spur(s), including foundations for that equipment.
 - 2,300 feet of new piping
 - New metering equipment
 - Four new liquid pumps
 - Rail offload header (rack) for 33 railcar tanks
- New Motor Control Center (MCC) building (power infrastructure upgrade) including the foundation for the building.

The capacity of the rail rack (45,000 barrels per day maximum calculated capacity) remained unchanged by the project and the rail rack continues to accommodate materials that it handled pre-project. There was no expansion of the rail spur tracks. The new equipment allows for transportation of non-hazardous materials and is located at a distance greater than 300 feet from any residential or commercial property. The DOT hazard classification of the soybean oil and pre-treated renewable feedstocks at the rail terminal is "non-regulated."

- Application Status: The project has been reviewed and approved by the County. Building permits were issued for the improvements.

3-Story Mixed-Use Building (File# CDDP18-03021) is a development plan application to construct a 22-unit, three-story, mixed-use building, with approximately 1,710 square-feet of ground level retail space located at 375 Parker Avenue, Rodeo. The proposed building will be 43 feet tall and set back 2 feet from the property line adjacent to Parker Avenue and 22 feet from the property line adjacent to Fourth Street. In accordance with the County's inclusionary housing ordinance, 3 of the 22 units will be affordable units. Development involves complete site improvements, including landscaping improvements, frontage improvements along Fourth Street, the construction of two carports along the northern property line, and a trash enclosure along the eastern property line.

- Application Status: approved by the Zoning Administrator on January 4, 2021.

Martinez Refinery Renewable Fuels Project (File# CDLP20-02046) is an application for an LUP to implement the Martinez Refinery Renewable Fuels Project located at 150 Solano Way, Martinez. The project would allow the conversion of Marathon's Martinez Refinery facility from the processing of crude oil to the processing of treated and untreated renewable feedstocks. Approximately 48,000 bpd of renewable feedstocks are expected to include biological based oils (i.e., soybean oil and corn oil), rendered fats, and other miscellaneous renewable feedstocks including used cooking oils or other vegetable oils. The feedstocks would be processed into renewable diesel, naphtha, propane and treated fuel gas. The conversion would include modifications to existing processing units, the installation of new units, and removal of obsolete units. New facilities include a renewable feedstock pretreatment unit, wastewater treatment equipment, and an advanced 3-stage low-NO_x thermal oxidizer. All construction, demolition, and addition of new equipment would be within the existing boundaries of the refinery.

Initially, product from the Refinery would be distributed by truck to the Bay Area as well as Central and Northern California. Product would also be transported to destinations outside of the Bay Area by ship via the Avon MOT and Amorco MOT, located approximately 0.5 mile north of the Refinery and approximately 2.5 miles west of the Refinery, respectively. Both terminals would undergo modifications to facilitate receipt of renewable feedstocks and distribution of renewable fuels associated with the proposed Project. Annual vessel traffic would increase from 143 vessels to 400 vessels.

- Application Status: Land Use Permit approved by Board of Supervisors on May 3, 2022. The project Phase I construction has completed and the project is operational.

Chevron Pipe Line Company (File #CDLP18-02027); a wholly-owned subsidiary of Chevron Corporation, proposes the Avon Connectivity Project (Project), the purpose of which is to connect two existing pipelines, the Bay Area Products Line and the TransMontaigne Partners pipeline 191 to the existing Chevron Avon Terminal. The Project will enable Chevron to directly transport refined liquid product to Kinder Morgan's Concord Terminal from the Project site - the Chevron Avon Terminal. The Avon Terminal address is: 611 Solano Way, Martinez CA, 94553. The applicant, Chevron Products Company¹ (Chevron), currently transports refined products from the Chevron Richmond Refinery (Richmond Refinery) to the Kinder Morgan Concord Terminal (Kinder Morgan Terminal) located in unincorporated Contra Costa County near the City of Concord using a two-step process. The refined products are initially transported by barge from the Richmond Refinery to the TransMontaigne Partners Martinez Oil Terminal in the City of Martinez, and then the products are transported via TransMontaigne Partners Pipeline 191 from the TransMontaigne Partners Terminal to the Kinder Morgan Terminal. From the Kinder Morgan Terminal, the refined products are distributed to various destinations throughout the

¹ Chevron Products Company is a division of Chevron U.S.A. Inc.

Bay Area via Kinder Morgan's existing San Francisco Bay Area Distribution System. The proposed Avon Connectivity Project is designed to enable the transport of refined products more efficiently, by pipeline from the Richmond Refinery to Chevron's Avon Terminal (Avon Terminal) via the existing Bay Area Products Line, and then by pipeline to Kinder Morgan's Terminal and the TransMontaigne Partners Terminal via a new connection to the existing TransMontaigne Partners Pipeline.

- Application Status: The project has been withdrawn and is no longer under consideration.

Selby Slag Remedial Action is a 66-acre site remediation project located within unincorporated Contra Costa County adjacent to the southern shoreline of the San Pablo Bay and Carquinez Strait. The site is the location of a former smelting facility. The Remedial Action Plan identifies what actions need to take place to remediate the site. Selby Slag Remedial Action is a 66-acre site remediation project located within unincorporated Contra Costa County adjacent to the southern shoreline of the San Pablo Bay and Carquinez Strait. The site is the location of a former smelting facility. The Remedial Action Plan identifies what actions need to take place to remediate the site.

- Application Status: The Remedial Action Plan and EIR is in final form and pending certification and approval by the DTSC. Currently, there are no ongoing remediation activities at the site.

6.4.1.2 San Luis Obispo County

Dana Reserve Specific Plan (San Luis Obispo County File# ED21-094, LRP2020-00007) is an application for a Specific Plan, Vesting Master Tentative Tract Map No. 3149, Conditional Use Permit, and Development Agreement to allow for the phased development of a master planned community. The project would allow for the future phased development of Residential (215.9 acres), Commercial (4.4 acres), Educational/Recreational (49.8 acres), Other (17.9 Acres), and transportation improvements. The area is located within the South County Inland sub area of the South County Planning Area approximately 5 miles east of the Santa Maria Site.

- Application Status: Final EIR issued. The Planning Commission will review the application and EIR in October 2023.

Central Coast Blue Project regional advanced purified water project intended to enhance supply reliability by reducing the Santa Maria Groundwater Basin's vulnerability to drought and seawater intrusion. The proposed project consists of an advanced treatment facility complex (including an equalization basin, an advanced purified water storage tank, and a pump station), water distribution pipelines, injection wells, monitoring wells, one new production well, and potential agricultural irrigation pipelines. The project is located approximately 4 miles north of the Santa Maria Site.

- Application Status: Project was approved. Final design and permitting is currently underway, with the first phase of construction expected in 2024.

6.4.2 Cumulative Impact Analysis

6.4.2.1 *Aesthetics*

As discussed in Section 4.2, *Aesthetics*, the Project would have less-than-significant impacts on visual resources because it is located at an existing Refinery and is in consistent with surrounding land uses. Demolition of the Santa Maria Site would improve the visual quality of the area. The proposed Project's incremental effects are not cumulatively considerable when viewed in connection with the effects of the other projects evaluated.

6.4.2.2 *Air Quality*

As discussed in Section 4.3, *Air Quality*, Project construction exhaust emissions for activities at the Rodeo Refinery were found to be significant for NO_x, mainly related to construction vehicles in Year 1 and background Marine Terminal incremental traffic during the Transitional Phase in Year 2. Mitigation Measure AQ-1 includes implementation of BAAQMD basic control measures that address not only fugitive dust emissions, but also NO_x emissions. Mitigation Measure AQ-2 requires Phillips 66 to prepare and implement a NO_x Mitigation Plan (NM Plan) prior to the issuance of construction-related permits for site preparation. The purpose of the NM Plan is to document expected construction and transitional phase NO_x emissions in detail; and, if necessary, to identify feasible and practicable contemporaneous measures to reduce aggregated construction and transition NO_x emissions to below the BAAQMD's 54 pounds per day threshold of significance. With implementation of both Mitigation Measures AQ-1 and AQ-2, NO_x impacts would be less than significant in the San Francisco Bay Area Air Basin (SFBAAB). Thus, because impacts would be less than significant or less than significant with mitigation incorporated, impacts would not be cumulatively considerable. Construction emissions would permanently cease upon completion of work.

Decommissioning and demolition activities at the Santa Maria Site would involve use of off-road construction equipment and on-road vehicles that produce exhaust emissions of criteria pollutants including reactive organic gases (ROG), NO_x, PM₁₀, and PM_{2.5}, along with ROG emissions from decommissioning of associated tanks and pipeline segments located within San Luis Obispo County. Daily and quarterly emissions from construction activities would not exceed San Luis Obispo County APCD significance thresholds, and impacts would be less than significant and not cumulatively considerable. Emissions from cleaning and removal from service of pipeline segments and associated tanks at Pipeline Sites located in the San Joaquin Valley APCD and Santa Barbara County APCD would not exceed the applicable significance thresholds recommended by the respective air districts. Therefore, impacts from these activities would also be less than significant and not cumulatively considerable. Decommissioning and demolition emissions would permanently cease upon completion of work.

Construction impacts in San Luis Obispo County (SCCAB), Santa Barbara County (SCCAB) and the San Joaquin Valley (SJVAB) would be geographically independent of impacts in Contra Costa County (SFBAAB). Because the four sites are in different air basins, emissions are not additive and would be less than significant and not cumulatively considerable on a statewide basis.

In Contra Costa County, which is within the SFBAAB, operation of the proposed Project would result in a net decrease of all pollutant emissions compared to baseline levels. As described above, the Phillips 66 Rodeo Unit 250 Hydrotreater project emission changes are small when compared to Unit 250 emissions

prior using solely petroleum-based feedstocks. The NuStar Project did not expand the rail spur or change its offloading rack capacity, and therefore, emission impacts are not expected to change. Thus, the operational impact would be less than significant, no mitigation would be required (i.e., the proposed Project in itself would encompass mitigation), and aggregated (negative) impacts would not be cumulatively considerable. Operations in San Luis Obispo County (SCCAB), Santa Barbara County (SCCAB) and the San Joaquin Valley (SJVAB) would permanently cease, emissions would cease, and impacts would not be cumulatively considerable.

There could be potentially significant offsite impacts for NO_x with respect to Project rail operations outside of the SFBAAB. However, any mitigation measures to address potentially significant impacts from rail transport operations, whether within or outside the SFBAAB, would be legally infeasible because of preemption by federal law governing rail transportation. Because rail transport emissions would occur in different air basins and cannot be mitigated at the state level, no determination can be made whether emissions would be cumulatively considerable or otherwise.

Chapter 4.3.9 of the 2022 EIR includes the results of the cumulative community background HRA consistent with the BAAQMD CEQA Guidelines. The BAAQMD Stationary Source Screening Tool was used to identify existing offsite (i.e., non-Project) permitted stationary sources within 1,000 feet (305 meters) of each of the potentially maximally exposed individual residents (MEIRs) for cancer risk, hazard index and PM_{2.5}. The results of the cumulative analysis were compared to BAAQMD's applicable Thresholds of Significance for determining cumulative impacts. Neither Project construction nor operation would result in exceedances of applicable cancer risk, non-cancer chronic hazard index, annual average PM_{2.5} concentration, and acute hazard index thresholds at the project-level or community cumulative-level. Thus, HRA results are less than significant, no mitigation would be required, and health impacts would not be cumulatively considerable.

6.4.2.3 Biological Resources

Impacts on biological resources are typically limited to an individual project site and possibly the immediate surroundings and would not be substantially compounded by the construction or operation impacts of other, more distant projects. An important exception to this is when a project eliminates a significant portion of a regional wildlife corridor or eliminates one of the few remaining pockets of habitat supporting a sensitive species in the same region. As discussed in Section 4.4, *Biological Resources*, the Project would not result in significant impacts related to terrestrial resources since all Project activities would occur within existing refinery boundaries. Therefore, the proposed Project's incremental effects are not cumulatively considerable when viewed in connection with the effects of the other projects evaluated.

However, the Project would result in significant and unavoidable impacts to marine biological resources as a result of an accidental spill of renewable feedstocks enroute, at or near the Marine Terminal. The frequency and size of potential spills could be lessened but not completely eliminated (refer to Mitigation Measure BIO-3, BIO-6 and BIO-7, which require implementation of HAZ-1 and HAZ-2). In addition, significant and unavoidable impacts would occur related to increased vessel traffic that would increase the presence of nonindigenous species. Mitigation Measure BIO-4 would reduce impacts but not to a less-than-significant level. Despite these recommended mitigation measures, the potential for a substantial adverse impact on special-status marine species or their habitat cannot be eliminated. The Project, in combination with specifically the Martinez Refinery Renewable Fuels Project, which identifies the same significant and adverse impacts, and the Phillips 66 Rodeo Unit 250 Hydrotreater project, which would continue to receive feedstocks by Marine Terminal and rail, would be cumulatively considerable.

6.4.2.4 Cultural Resources

A project's impacts with respect to cultural resources are generally site specific and will not affect or be affected by other development in the region. Given past investigations in the region, cultural resources are likely to be present at some of the Project sites evaluated for cumulative impacts. As stated in Section 4.5, *Cultural Resources*, the proposed Project would not impact historical resources as defined by CEQA and would implement Mitigation Measures CUL-1 and CUL-2 to reduce impacts associated with inadvertent discovery of archaeological resources, paleontological resources, or human remains.

Other future projects would likely require grading and excavation during construction, which could disturb subsurface archaeological resources or human remains. As a result, the other projects throughout could result in cumulatively significant impacts to cultural resources if these resources are not protected upon their discovery. However, these developments would be required to undergo environmental review pursuant to CEQA and would be subject to Section 7050.5(b) of the California Health and Safety Code for treatment of human remains; Section 21083.2 of the CEQA Statute for treatment of archaeological resources; and local codes that establish protections for historic, cultural, and natural resources of special historic interest. Therefore, because subsurface cultural resources are protected upon discovery by law, the combined effects from the proposed Project and related projects would not be cumulatively significant.

6.4.2.5 Energy Conservation

As discussed in Section 4.6, *Energy Conservation*, in statewide context, the amounts of diesel and gasoline consumed during the construction phases of the Project would be considered de minimis because Project construction fuel usage would represent only 0.041 percent of the state's transportation sector diesel fuel consumption and only 0.001 percent of the state's transportation sector gasoline consumption. Grid-sourced electric power usage associated with Project demolition and construction activities would be intermittent and negligible, given construction equipment are largely diesel-powered. Therefore, energy impacts of construction and demolition activities would be less than significant and impacts would not be cumulatively considerable, no mitigation would be required, and impacts would not be cumulatively considerable.

The Project would eliminate operations of the Santa Maria Site and Pipeline Sites, and equipment at those sites would permanently cease consumption of energy. Because the Project would demolish the Carbon Plant, there would be no further operational energy usage there. The consumption of diesel fuel at the Rodeo Site would increase due to increases in marine vessel and rail traffic. Overall, this increase would be partially offset by the discontinuance of truck and rail traffic at the Carbon Plant and Santa Maria Site. Energy consumption due to the NuStar Project is not expected to change because it did not expand the rail spur nor change its rack capacity. The consumption of gasoline, which is attributable mainly to worker vehicles, would not substantially change because employment at the Rodeo Site, including for operation of the Phillips 66 Rodeo Unit 250 Hydrotreater project, would not substantially change. Operation of the Project as a whole would result in decreases in the consumption of electricity, relative to the baseline, primarily as a result of the closure of the Santa Maria Site. Due to the closure of the Carbon Plant cogeneration system, the Carbon Plant site would no longer export electricity to Pacific Gas and Electric Company (PG&E). The Rodeo Site would continue to purchase electricity from PG&E, subject to availability of other electricity sources, such as Air Liquide, including renewable sources.

The Project's net use of electricity, natural gas, and diesel fuel would be minimal relative to total state and regional supplies and would therefore have no substantial adverse effect on energy resources or represent wasteful, inefficient, or unnecessary use of energy. Importantly, the Project would create renewable fuels that would contribute to the state's Low Carbon Fuel Standard (LCFS) requirements and would continue to contribute to the state and regional supplies of energy in the form of "green" transportation and heating fuels made from renewable feedstocks. Impacts related to the use of energy in Project operation would be less than significant, no mitigation would be required, and impacts would not be cumulatively considerable.

6.4.2.6 Geology and Soils

A project's impacts with respect to geology and soils are generally site specific and will not affect or be affected by other development in the region. As discussed in Section 4.7, *Geology and Soils*, limited erosion could occur during construction grading or other site preparation activities associated with other projects, which could cumulatively contribute to localized soil erosion. In addition, the potential for impacts related to the area's seismicity could occur. Environmental review has been or will presumably be conducted for each of the other identified projects as was done for the proposed Project. Impacts of individual projects will be mitigated by compliance with city and county development standards, including standard erosion control measures. In addition, implementation of Mitigation Measure GEO-1 would reduce the Project's contribution to less than cumulatively considerable.

6.4.2.7 Greenhouse Gas Emissions

As discussed in Section 4.8, *Greenhouse Gas Emissions*, construction of the Project would occur over a period of approximately 21 months to construct the Project features at the Rodeo Site and to demolish the Carbon Plant and the Santa Maria Site using off-road equipment and on-road vehicles that emit GHGs. The Transitional Phase would be a 7-month period of increased vessel traffic to the Marine Terminal, and those incremental marine vessel GHG emissions are counted towards the Rodeo Site construction. Total construction GHG emissions at all sites amortized over a 30-year period would represent approximately 481 MT per year of CO_{2e}.

The net Project operational emissions (i.e., Project minus baseline) combined with the amortized construction emissions is evaluated against the BAAQMD's operational threshold of 10,000 MT CO_{2e} per year for industrial stationary source projects. The net aggregated Project operational emissions reduction of 24,077 MT CO_{2e} per year plus amortized construction emissions of 481 MT CO_{2e} per year results in a net GHG reduction (i.e., negative change), which is below the 10,000 MT CO_{2e} per year threshold. Thus, relative to baseline emissions, the Project would result in decreases in annual GHG emissions and therefore have a beneficial impact. As described above the Phillips 66 Rodeo Unit 250 Hydrotreater project will result in an approximate 1,900 MT CO_{2e} per year decrease of GHG emissions and would not contribute to the cumulative condition. However, the CEQA impact evaluation does not include the operational Santa Maria and Pipeline GHG reductions (historical data) and therefore underestimates the GHG decrease when compared to the actual decrease of GHG emissions that would occur statewide due to the Project. Because the aggregated net construction and operational GHG emissions are below the 10,000 MT CO_{2e} per year threshold, i.e., negative, the impact associated with GHG emissions from the Project would be less than significant and would not be cumulatively considerable.

6.4.2.8 Hazards and Hazardous Materials

Hazardous materials released from a project site would most likely be caused by disturbance of contaminated soils or contaminated groundwater from a past use during construction activities, or mishandling of hazardous materials and wastes during routine use. In almost every instance, the environmental and health hazards associated with ground disturbance, construction and subsequent operations of a project are localized to the project site and the immediate surroundings, unless the project involves a large-scale facility that handles and/or generates large quantities of volatile hazardous substances and wastes.

Other future projects could use, store, transport, and dispose of hazardous materials, which could cumulatively increase the community-wide risk of accidental releases of such materials that could become a threat to the environment or human health. As discussed in Section 4.9, *Hazards and Hazardous Materials*, the proposed Project would not result in significant and adverse impacts from construction and demolition activities since the Project is required to comply with federal, state, and local laws, which are designed to avoid and minimize adverse impacts on public health, safety, and the environment. As with the proposed Project, each project will be subject to environmental review pursuant to CEQA. If significant impacts related to hazards or hazardous materials are still identified, each project would be required to implement mitigation measures to avoid or reduce the impacts.

With the Project, routine disposal of hazardous materials and waste would decrease compared to baseline conditions, and truck traffic related to feedstock transportation would also have a reduction in hazards. There would be an overall reduction in hazards and potential impacts associated with truck transport. The Marine Terminal would continue to transport feedstock and refinery products, but the hazards to the public of the renewable feedstocks would be reduced compared to the baseline transportation of crude oil. Generally, these renewable feedstocks are not identified as marine pollutants by the US Department of Transportation (USDOT), the United Nations, or the International Maritime Organization, which regulate the movement of materials throughout the world. Impacts from a spill and subsequent fire at the Marine Terminal would be located a substantial distance away from any public receptors, and impacts would therefore be less than significant. Therefore, Project impacts would not be cumulatively considerable.

However, the transitional phase and operational phase of the Project could result in discharges into waters of the San Pablo and San Francisco Bays from vessels (barges and tankers) transporting feedstocks and blending stocks to, and refined products from, the Marine Terminal. A marine vessel spill could impact a range of areas, depending on the tide, the wind and other factors. The spill sizes could cover a substantial range, with the worst-case discharge volume at the Marine Terminal estimated to be 3,976 barrels (bbls).

Although compliance with existing regulations and implementation of Mitigation Measures HAZ-1 and HAZ-2 for the Project would reduce the frequency and size of spills the potential for a substantial adverse impact on water quality cannot be eliminated. With respect to the NuStar Project, impacts related to hazards or hazardous materials are not expected to change because NuStar did not expand the rail spur or change its offloading rack capacity. However, the Project, in combination with other projects, specifically the Martinez Refinery Renewable Fuels Project, which identifies the same significant and unavoidable impacts, and operation of the Phillips 66 Rodeo Unit 250 Hydrotreater project, which would continue to receive renewable feedstocks by Marine Terminal and rail, would result in adverse impacts that would be cumulatively considerable.

6.4.2.9 Hydrology and Water Quality

The proposed Project and future cumulative projects are located in the Suisun Basin within the San Francisco Bay Area Hydrologic Basin, and watershed of Oso Flaco Creek in San Luis Obispo County. Projects could result in incremental effects on the water quality of these watersheds. However, the proposed project and cumulative projects are subject to state, regional, and local/county requirements that are designed to prevent regional development from adversely affecting surface and groundwater water quality. Future projects would be evaluated on a project-by-project basis to determine the most appropriate BMPs and other stormwater treatment measures to be implemented. Compliance with construction permits would be verified by the respective jurisdiction to ensure that construction activities would not significantly impact surface or ground water quality. As such, due to required compliance with state, regional, and local regulations protecting water quality, the combined impact of the proposed Project and related projects would be cumulatively less than significant.

The Project would have no impact related to seiche, tsunami, or mudflow.

However, the Project would result in a significant and unavoidable impact due to the potential to violate water quality standards affecting surface water quality from the transitional and operational phases of the Project. Accidental discharges into waters of the San Pablo and San Francisco Bays from vessels transporting feedstocks and blending stocks to, and refined products from, the Marine Terminal could occur. A marine vessel spill could impact a range of areas, depending on the tide, the wind and other factors. The spill sizes could cover a substantial range, with the worst-case discharge volume at the Marine Terminal estimated to be 3,976 bbls.

Although compliance with existing regulations and implementation of Mitigation Measures HAZ-1 and HAZ-2 for the Project would reduce the frequency and size of spills the potential for a substantial adverse impact on water quality cannot be eliminated. Therefore, the Project, in combination with other projects, specifically the Martinez Refinery Renewable Fuels Project, which identifies the same significant and unavoidable impacts, would result in adverse water quality impacts that would be cumulatively considerable.

6.4.2.10 Land Use and Planning

As discussed in Section 4.11, *Land Use and Planning*, The Project would have less-than-significant impacts on land use and planning because it is located at an existing refinery, and the Project would be consistent with the adopted general plan and its applicable land use designations and policies adopted for the purpose of avoiding or mitigating environmental effects. The proposed Project's incremental effects are not cumulatively considerable when viewed in connection with the effects of the other projects evaluated.

6.4.2.11 Noise and Vibration

As discussed in Section 4.12, *Noise and Vibration*, Contra Costa County restricts construction to typical daytime or normal working hours as a standard condition of approval for development projects. Short-term noise level increases from construction activities at the Rodeo Site would be considered substantial if construction noise conducted outside normal working hours is distinctly audible. However, because noise and vibration does not persist or accumulate in the environment, sources of noise or vibration must occur simultaneously to be perceived as cumulative.

Due to long attenuation distances, any increases in ambient noise from construction at the Rodeo Site would be barely perceptible or imperceptible and would thus not represent a substantial increase or a nuisance to the surrounding community. During approximately 7 months of the construction period, the number of vessels calling at the Marine Terminal would increase above baseline levels, but the number of vessels calling at the Marine Terminal on a peak day would not increase. Accordingly, there would be no increase in noise levels due to peak-day vessel activity during construction. Noise impacts related to demolition of the Carbon Plant would not be perceptible by most persons and would thus not represent a substantial increase or a nuisance. Therefore, impacts of onsite noise from these three sites would be less than significant, and no mitigation would be required. Further, Carbon Plant demolition-related vehicle and truck traffic would not pass by existing sensitive receptors. With demolition of the Carbon Plant, there would be no operation and maintenance noise (or vibration) impacts at that site associated with the completed Project. Construction-related noise impacts at the County sites would not be cumulatively considerable.

At the Santa Maria Site, demolition activities could result in a 6-dBA increase over ambient noise levels, which would be just perceptible by most persons. Demolition activities are expected to occur during daytime hours that are exempt per the San Luis Obispo County noise ordinance. Demolition-related vehicle and truck traffic would not pass by existing sensitive receptors on residential streets. The impact would be less than significant, no mitigation would be required. With demolition of the Santa Maria Site, there would be no operation and maintenance noise (or vibration) impacts at that site associated with the completed Project. Construction-related noise impacts at the Santa Maria Site would not be cumulatively considerable.

The Pipeline Sites would be emptied and cleaned and then abandoned in place. Decommissioning activities at the Pipeline Sites would closely resemble existing routine maintenance activities, e.g., vehicles and potable equipment use. Accordingly, noise and vibration levels would not be increased above baseline levels and would therefore not exceed applicable standards during operation and maintenance. Therefore, no net impact would occur from decommissioning of the Pipeline Sites and impacts would not be cumulatively considerable.

At the Rodeo Site, cumulative operational noise from new process equipment would not cause the existing noise to increase by more than 1 dBA at sensitive receptors, which is below the 5 dBA incremental threshold. Operation of the Project would not result in an increase of the number of permanent employees and, therefore, no increase in commuter traffic. Shutting down the Carbon Plant would reduce total daily trucks from the Rodeo Refinery by more than half. Accordingly, traffic noise related to the Project would be reduced from baseline levels, although the reduction would be too small to be perceptible by most persons at sensitive receptors. Because there would be no additional daily train visits, the Project would not result in additional noise events from rail operations. The rail operations at the Carbon Plant Site would permanently cease. Accordingly, the Project would result in a slight, likely imperceptible, decrease in rail-related noise. The Project would not result in an increased number of vessels calling at the Marine Terminal on a peak day. Accordingly, noise levels would not increase as a result of peak-day vessel activity. Operational noise impacts at the County sites would not be cumulatively considerable.

No strong sources of vibration would be employed during demolition activities at the Carbon Plant or Santa Maria Site. The long attenuation distances from these sites to receptors, ranging from 1,500 to 2,000 feet respectively, would render any vibrational energy imperceptible. At the Rodeo Site, a pile driver would represent the greatest vibration source. The nearest sensitive receptor to the Rodeo Site is located

at least 1,475 feet from the proposed work area. Groundborne vibration associated with a pile driver at that distance would not be expected to be perceived at sensitive receptors. Thus, vibration impacts at the County sites would not be cumulatively considerable.

6.4.2.12 Transportation and Traffic

No significant project-level impacts were identified with respect to geometric design hazards, conflicts with transit, bicycle or pedestrian plans or programs, or conflict with CEQA Guidelines Section 15064.3(b) or other plans, ordinances or policies related to the transportation system. Environmental review has been or will presumably be conducted for each of the other identified projects as was done for the proposed Project. Impacts of individual projects will be mitigated by compliance with city and county development standards. Because operation of the Phillips 66 Rodeo Unit 250 Hydrotreater project does not require more employees, this project does not contribute to cumulative traffic. Therefore, the Project's incremental effects are not cumulatively considerable when viewed in connection with the effects of the other projects evaluated.

The Project would result in a significant impact related to emergency access during construction and demolition. However, with implementation of TRA-1, which requires implementation of a Traffic Management Plan to ensure emergency access is maintained, the impact would be less than significant. Therefore, the proposed Project's incremental effects are not cumulatively considerable when viewed in connection with the effects of the other projects evaluated.

6.4.2.13 Tribal Cultural Resources

A project's impacts with respect to tribal cultural resources are generally site specific and will not affect or be affected by other development in the region. As discussed in Section 4.14, *Tribal Cultural Resources*, the Project would have a significant impact on undiscovered tribal archeological resources, paleontological resources, or human remains. As discussed in Section 4.14, *Tribal Cultural Resources*, the Project would have a potentially significant impact on undiscovered tribal cultural resources, or human remains; however, implementation of recommended Mitigation Measures TRC-1 through TRC-4 would reduce the Project's contribution to less than cumulatively considerable because unanticipated discoveries would be treated appropriately.

Other pending and future projects could result in cumulative impacts to tribal cultural resources if these resources are not protected upon their discovery. However, these other projects would also be subject to compliance with the provisions of AB 52 involving Native American notification and consultation and would be subject to compliance with Section 7050.5(b) of the California Health and Safety Code for treatment of human remains that might be discovered during excavation work. Continued compliance with these regulatory standards will avoid significant cumulative impacts to tribal cultural resources.

6.4.2.14 Wildfire

Wildfire risks depend greatly on site-specific characteristics, such as fuel load, terrain, and weather conditions, and if project sites are located in high fire hazard zones. Depending on the location of the projects listed above and the project area's potential for wildland fire, other projects may increase the risk of wildfire if protection and prevention measures are not implemented. Environmental review has been or is expected to be conducted for each of the cumulative projects, as was done for the proposed Project.

Because related projects located in high fire hazard zones would be required to comply with all applicable building safety codes and county regulations pertaining to fire prevention and suppression and would be reviewed to ensure adequate emergency access is provided, the combined wildfire the proposed Project's incremental effects are not cumulatively considerable when viewed in connection with the effects of the other projects evaluated.

6.4.2.15 Solid Waste

As discussed in Section 4.16, *Solid Waste*, based on the short-term construction and demolition period, compliance with CalGreen requirements, and the local landfills having adequate capacity to support the daily solid waste disposal needs of the Project, the Project would not substantially affect the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals, and would comply with solid waste management and reduction regulations. Therefore, the proposed Project's incremental effects are not cumulatively considerable when viewed in connection with the effects of the other projects evaluated.

6.4.2.16 Environmental Justice

Environmental Justice impacts depend on the location of the project in relation to existing disadvantaged communities. The proposed Project's construction and operations at the Rodeo Refinery result in less-than-significant impacts, or less-than-significant impacts with mitigation, which could disproportionately affect disadvantaged communities as identified in Section 4.3, *Air Quality* (criteria pollutants, toxics, health risk, odor), Section 4.4, *Biological Resources* (terrestrial), Section 4.8, *Greenhouse Gas Emissions*, Section 4.9, *Hazards and Hazardous Materials* (terrestrial), Section 4.12, *Noise and Vibration*, and Section 4.13, *Transportation and Traffic*. With respect to air quality and GHGs in particular, there would be a reduction of criteria air pollution exposure to the public, including disadvantaged communities. This reduction occurs in part as a result of the conversion of the Rodeo Refinery to a renewable fuels facility, the termination of Carbon Plant operations and significantly reduced truck traffic.

As described in Section 4.4, *Biological Resources*, Section 4.9, *Hazards and Hazardous Materials*, and Section 4.10, *Hydrology and Water Quality*, significant and unavoidable impacts could occur due to the increased risk of accidents resulting from increased vessel traffic. However, as explained in Section 4.9, *Hazards and Hazardous Material*, the effects of any such incident would not result in a corresponding public health or safety impact based on the separation distance between the Marine Terminal and public receptor locations, and the comprehensive regulatory programs and project-specific mitigation measures to address any such accidents.

Other pending and future projects could disproportionately affect disadvantaged communities resulting in environmental justice impacts. However, as with the proposed Project, these other projects would also be subject to compliance with federal, state, and local regulations that would minimize potentially significant environmental impacts that could disproportionately affect disadvantaged communities. Therefore, the proposed Project's incremental effects are not cumulatively considerable when viewed in connection with the effects of the other projects evaluated.