



**San Joaquin Valley Unified
Air Pollution Control District**

**NuStar Terminal Operations Partnership, L.P.
Renewable Diesel Project**

Project Number N-1192323

**Initial Study and Draft
Negative Declaration**

June 12, 2020



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INITIAL STUDY AND DRAFT NEGATIVE DECLARATION

Bulk Terminal Project for NuStar Terminal Operations Partnership, L.P.

June 12, 2020

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Project Sponsor:
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A. INTRODUCTION

NuStar Terminals Operations Partnership, L.P. (NuStar) proposes to install two new rail offloading pumps and dual rail car offloading connections on the existing rail siding, as well as the installation of new 8" piping from the rail tracks to transfer Renewable Diesel (RD) from the railcars to existing storage tanks (Project). Additionally the Project includes up to 7 additional rail cars per day to existing train trips that are made to the facility. No additional train trips will be added. Approximately 1,650,000 barrels of incremental RD would be received by rail annually as a result of this Project.

B. PURPOSE AND AUTHORITY

For this proposed Project, the San Joaquin Valley Unified Air Pollution Control District (District) has received an Authority to Construct (ATC) application (ATC-N-1192323) from NuStar to modify the bulk terminal to receive, store, and load-out RD.

The District has discretionary approval power over the project via its Permits Required Rule (Rule 2010) and New and Modified Stationary Source Review Rule (Rule 2201). The Project is located in the Port of Stockton. The Port of Stockton determined that the Project did not require modification to NuStar's existing lease or approval from the Port and that there was no discretionary action required by the Port of Stockton for this project. No other Agency is known to have discretionary approval over the Project. As such, the District is the public agency having principal responsibility for approving the Project and serves as Lead Agency under California Environmental Quality Act (CEQA), according to CEQA Guidelines 15367.

The basic purposes of CEQA are to:

- Inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities.
- Identify the ways that environmental damage can be avoided or significantly reduced.
- Prevent significant, avoidable damage to the environment by requiring changes in projects through use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible.
- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.



Under CEQA the Lead Agency (District) is required to perform the following to comply with CEQA requirements:

- Conduct preliminary reviews to determine if applications are subject to CEQA [CCR §15060].
- Conduct review to determine if projects are exempt from CEQA [CCR §15061].
- Prepare Initial Studies for projects that may have adverse environmental impacts [CCR §15063].
- Determine the significance of the environmental effects caused by the project [CCR §15064].
- Prepare Negative Declarations or Mitigated Negative Declarations for projects with no significant environmental impacts [CCR §15070].
- Prepare, or contract to prepare, EIRs for projects with significant environmental impacts [CCR §15081].
- Adopt reporting or monitoring programs for the changes made to projects or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment [PRC §21081.6 & CCR §15097].
- Comply with CEQA noticing and filing requirements.

C. PROJECT BACKGROUND INFORMATION

Project Description

The Project's goal is to improve NuStar's rail infrastructure to more efficiently offload additional RD by rail, which will support broader California Low Carbon Fuel Standard goals for lower-emitting fuels.

NuStar operates a terminal facility for gasoline, ethanol, and diesel, including RD and biodiesel, at the Port of Stockton (Port). The terminal provides storage and blending and supports truck, rail, and pipeline transportation. It has 23 tanks with a total storage capacity of 878,000 barrels. The terminal has eight truck loading bays, and the rail operation area has 16 unloading spots on three tracks.

The Project would have RD be received by rail. NuStar anticipates the addition of approximately 7 rail cars per day to existing train trips to deliver the RD to the facility. This would also involve the installation of the two new rail offloading pumps, the dual rail car offloading connections and the 8" pipes to transfer the RD from the rail cars to be stored in the existing tanks 1502, 1503, 1001, 1002, 1003, 1004, and 3304. These tanks currently store diesel, gasoline, or RD. The Project does not include the addition of new tanks and there will be no increase in the storage capacity at the facility. RD from the tanks would be pumped to the existing North and South Truck Loading Racks



to be offloaded into trucks. The ATC application (ATC-N-1192323) would be to modify the bulk terminal to receive, store, and load-out RD.

NuStar plans to initiate construction of this Project in summer 2020, with increased RD handling capabilities in place by the end of the year.

Project Location

The Project is located at the NuStar Terminal Facility that is located at 2941 Navy Drive, in Stockton, in San Joaquin County, California. San Joaquin County is located in the San Joaquin Valley Air Basin (SJVAB) (see Figure 1).

General Plan Designation and Zoning

The NuStar Terminal Facility is currently designated in the Port of Stockton General Plan as Port or Industrial, General.

Surrounding Land Uses and Setting

The area surrounding the facility is zoned for industrial uses. These uses include industrial port uses to the north, east, and south and the San Joaquin River (and Stockton Deep Water Ship Channel) to the north, as well as oil and gas processing operations.

The District has verified that the proposed project is not within 1,000 feet of the outer boundary of any schools. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to the project.

Other Public Agencies Whose Approval Is Required

In addition to this Initial Study (IS), the following permits and approvals would be required for the proposed Project. This IS may be used to support decisions related to permits/approvals required for the Project that are anticipated to include, but are not limited to, the following:

- Coverage under the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP)
- City of Stockton Building Department
- Central Valley Regional Water Quality Control Board (CVRWQCB)
- San Joaquin Council of Governments
- Stockton Fire Department: approval of fire protection system



D. DECISION TO PREPARE A NEGATIVE DECLARATION

The District has considered the environmental effects of the project and has determined that the project will have a less than significant impact on the environment. Project design elements and mitigation measures that reduce the project's impact on the environment would be enforced through District permit conditions.



Figure 1

Regional Location within the SJVAB

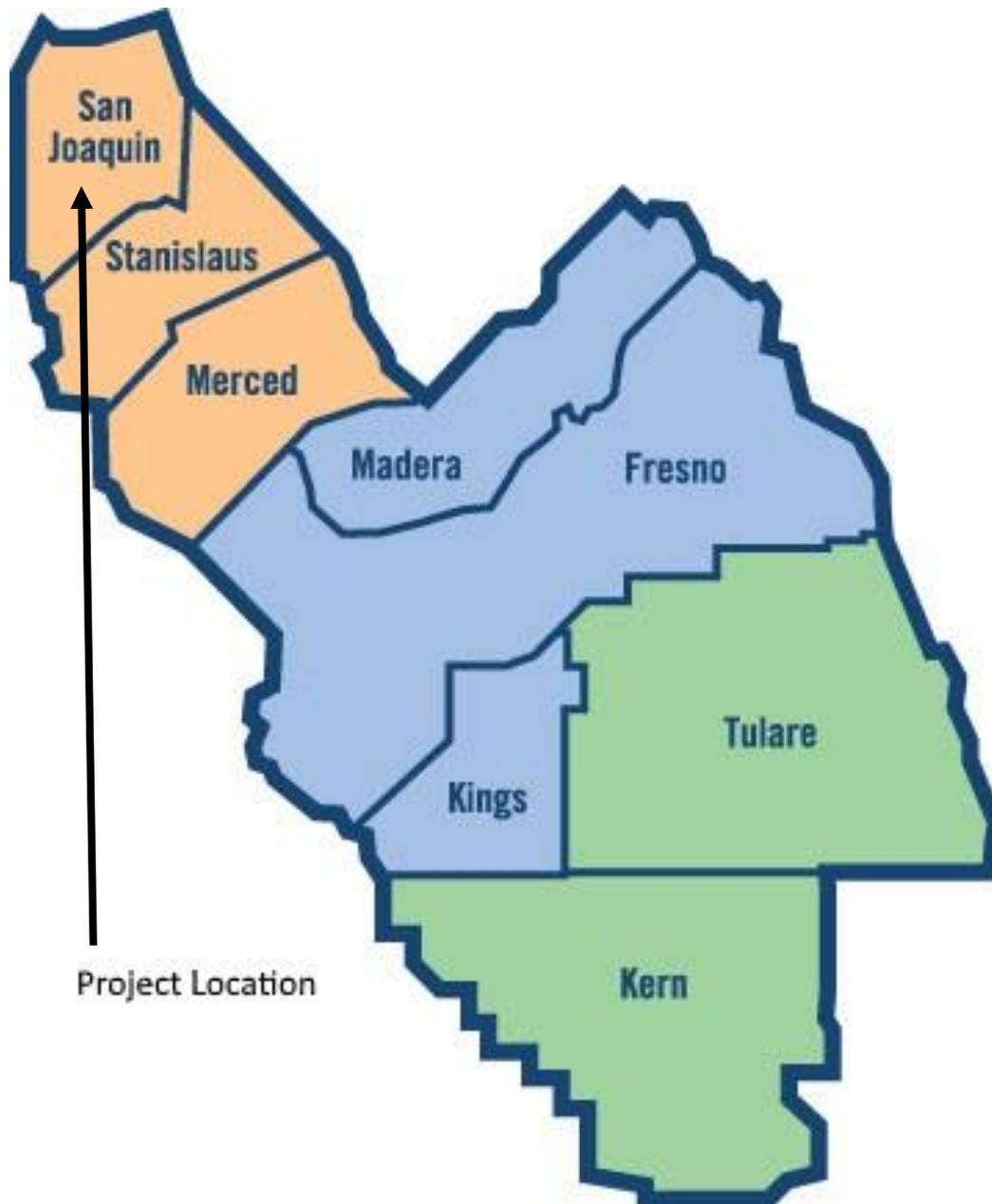




Figure 2

Project Site and Vicinity Map

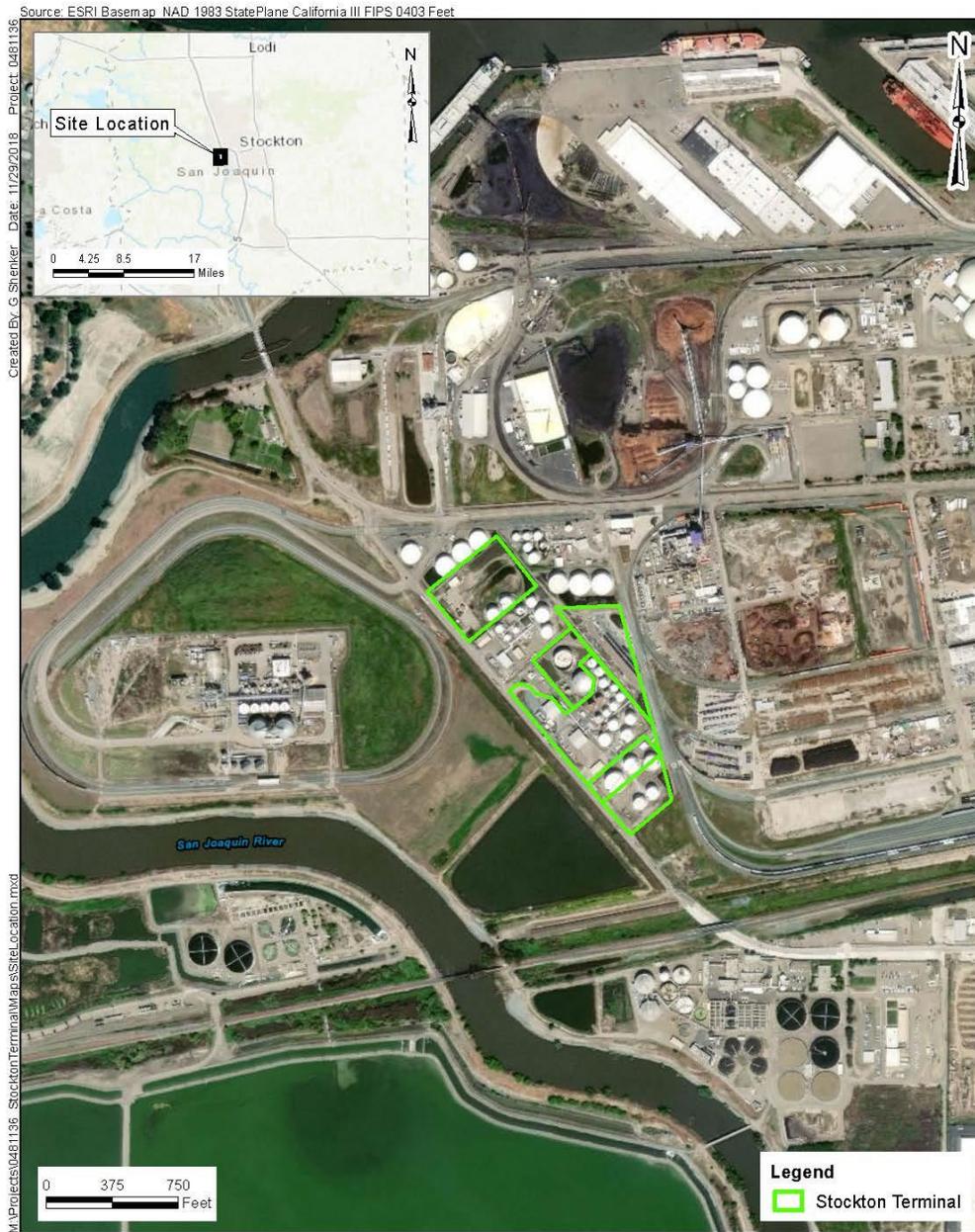


Figure 1
 Project Location
 Stockton Terminal
 2941 Navy Drive
 Stockton, CA



E. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors below were analyzed and reviewed. It was determined that there are no potentially significant impacts associated with this Project.

- | | | |
|--|--|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agricultural/Forestry Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Energy |
| <input type="checkbox"/> Geology/Soils | <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards and Hazardous Materials |
| <input type="checkbox"/> Hydrology/Water Quality | <input type="checkbox"/> Land Use/Planning | <input type="checkbox"/> Mineral Resources |
| <input type="checkbox"/> Noise | <input type="checkbox"/> Population/Housing | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation | <input type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Utilities/Service Systems | <input type="checkbox"/> Wildfire | <input type="checkbox"/> Mandatory Findings of Significance |

F. DETERMINATION

I certify that the project was independently reviewed and analyzed and that this document reflects the independent judgment of the District.

- 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 the mitigation measures described on an attached sheet have been added to the project. A MITIGATED NEGATIVE DECLARATION has been prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a significant effect(s) on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets, if the effect is a “potentially significant impact” or “potentially significant unless mitigated.” An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

Signature: 

Date: June 12, 2020

Printed name: Morgan Lambert
 Title: Deputy Air Pollution Control Officer



G. ENVIRONMENTAL IMPACT CHECKLIST

I. AESTHETICS

I. AESTHETICS Would the Project	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Affect a scenic vista or scenic highway?				X
b) Have a demonstrable negative aesthetic effect?				X
c) Create light or glare?				X

a) Have a substantial adverse effect on a scenic vista?

No Impact.

The Project site is located within an active liquid bulk fuel oil terminal that is surrounded by industrial uses. The site is surrounded by industrial/commercial facilities and is not located along a scenic vista route. The existing visual character of the Project site is not considered scenic, and the proposed equipment that would be installed (pumps and piping) and proposed operations are similar to existing onsite features and operations. Therefore, the District concludes that the Project will have no impact 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?

No Impact.

No scenic resources such as rock outcroppings, trees, or historic buildings will be disturbed by the proposed project. The Project would be located at existing NuStar Terminal Facility at the Port of Stockton. Therefore, the District concludes that the Project will have no impact on scenic resources.

c) Create light or glare?

No Impact.

Light sources currently present at the Project site would remain unchanged. The Project would not require the installation of new lighting. The new offloading equipment and piping being installed under the Project would have non-reflective surfaces, and would not be sources of glare. Therefore, the District concludes that the Project will have no impact on light and glare.



II. AGRICULTURAL RESOURCES

II. AGRICULTURAL RESOURCES Would the Project	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
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?				X

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?

No Impact.

The Project involves modifications to an existing bulk oil terminal, and would not change the existing land use at the Project site. The Project would be located at existing NuStar Terminal Facility at the Port of Stockton. The Project site does not support agricultural use and no Farmland will be converted to non-agricultural use. Therefore, the District concludes that the Project will have no impact on Farmland.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact.

The Project site, zoned Port or Industrial, General (City 2018), is not subject to Williamson Act contracts and does not support agricultural use or forestry resources. Therefore, the District concludes that the Project will have no impact on 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?*

No Impact.

The Project would not result in the conversion of farmland to non-agricultural use or forest land to non-forest use. Therefore, the District concludes that the Project will have no impact resulting in conversion of Farmland to non-agricultural use.

III. AIR QUALITY

III. AIR QUALITY Would the Project	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?			X	
b) Violate any air quality standard or contribute substantially to an existing or Projected air quality violation?			X	
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 which exceed quantitative thresholds for ozone precursors)?			X	
d) Expose sensitive receptors to substantial pollutant concentrations?			X	
e) Create objectionable odors affecting a substantial number of people?			X	

a) *Conflict with or obstruct implementation of the applicable air quality plan?*

Less than Significant Impact.

The District is tasked with implementing programs and regulations by the Federal Clean Air Act and the California Clean Air Act and has prepared plans to attain federal and state Ambient Air Quality Standards (AAQS). The District has established thresholds of significance for criteria pollutant emissions, which are based on federal and District NSR offset requirements for stationary sources. Stationary sources in the District are subject to some of the toughest regulatory requirements in the nation.



The significance of the impacts of the emissions from construction, operational non-permitted equipment and activities, and operational permitted equipment and activities are evaluated separately. For construction emissions, the annual emissions are evaluated on a consecutive 12-month period. A project would be determined to have a significant impact on air quality if the emissions sum for any criteria pollutant exceeds its respective threshold of significance. The District's thresholds of significance for criteria pollutant emissions are presented below in Table 1.

Table 1: District Thresholds of Significance for Criteria Pollutants

Pollutant	Emissions (tons per year)
ROG	10
NO _x	10
CO	100
SO _x	27
PM ₁₀	15

Construction Emissions

The Project would involve the installation of two new rail offloading pumps and dual rail car offloading connections on the existing rail siding to enable RD to be offloaded simultaneously from rail cars on multiple tracks instead of from one track at a time. The Project also includes the installation of new 8" piping from the rail tracks to transfer RD from railcar to existing storage tanks.

Construction is anticipated to start in summer 2020 and occur over a period of 6 months. Construction emissions would be generated by heavy construction equipment and worker vehicles during installation of the infrastructure described above, including aboveground piping and pump installation at the rail tracks and near the tanks, and installation of new load arms at the truck rack.

As shown in Table 2 below, construction emissions will not exceed the District thresholds of significance. These factors and the emissions calculations are provided in Appendix B. Therefore, the District concludes that the Project construction emissions will have a less than significant impact on air quality.



Table 2: Project Construction Emissions

Source Category	PM ₁₀	PM _{2.5}	NO _x	SO _x	CO	VOC
	Annual (tons per year)					
2020 Construction	0.22	0.15	1.88	0.00	1.90	0.25
Significance Threshold	15	15	10	27	100	10
Significant?	No	No	No	No	No	No

Source: March 23, 2020 CalEEMod Analysis, CalEEMod Version 2016.3.2

Operational Emissions.

Operational Non-Permitted Activities: Operational emissions would include combustion pollutants from approximately seven rail cars per day being added to existing train trips, bringing RD to the facility and from trucks delivering the RD to customers after loading at the truck rack. Train emissions were calculated using a combination of USEPA factors and industry-reported fuel use data. These factors and the emissions calculations are provided in Appendix C.

Operational Permitted Equipment (stationary sources): In addition to these mobile source emissions, there would be a small amount of ROG, or VOC, emissions from fugitive vapor losses from connection points along piping and pumps. The annual VOC emissions would be less than 200 pounds per year and were evaluated in the Authority to Construct permit application submitted to the District.

As shown in Tables 3 and 4 below, operational source emissions will not exceed the District thresholds of significance for criteria pollutants. Therefore, the District concludes that Project operational emissions will have a less than significant impact on air quality.



Table 3: Project Operational Emissions-Non-Permitted Activities

Source Category	PM ₁₀	PM _{2.5}	NO _x	SO _x	CO	VOC
	Annual (tons per year)					
Trucks	0.09	0.04	4.21	0.01	0.86	0.21
Rail	0.04	0.04	2.06	0.00	0.45	0.07
Total Emissions	0.13	0.09	6.27	0.01	1.31	0.37
Significance Threshold	15	15	10	27	100	10
Significant?	No	No	No	No	No	No

Source: Appendix C

Table 4: Project Operational Emissions-Permitted Activities

Source Category	PM ₁₀	PM _{2.5}	NO _x	SO _x	CO	VOC
	Annual (tons per year)					
Stationary Sources	0	0	0	0	0	0.09
Total Emissions	0	0	0	0	0	0.09
Significance Threshold	15	15	10	27	100	10
Significant?	No	No	No	No	No	No

Source: District ATC Project N-1192323

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Less than Significant Impact.

Determination of whether project emissions would violate any ambient air quality standard is largely a function of air quality dispersion modeling. If project emissions would not exceed State and Federal ambient air quality standards at the project's property boundaries, the project would be considered to not violate any air quality standard or contribute substantially to an existing or projected air quality violation. The highest daily Project operational-related emissions are 23.08 pounds of NO_x per day for trucks and 5.07 pounds of NO_x per day for trains which, altogether, is



substantially less than the 100 lbs. per day District threshold. Therefore, the Project is not expected to result in a violation of an air quality standard and the District concludes that the Project will have a less than significant impact on air quality.

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 which exceed quantitative thresholds for ozone precursors)?*

Less than Significant Impact.

By its very nature, air pollution has a cumulative impact. The District's nonattainment status is a result of past and present development with the San Joaquin Valley Air Basin (SJVAB). Furthermore, attainment of ambient air quality standards can be jeopardized by increasing emissions-generating activities in the region. No single project would be sufficient in size, by itself, to result in nonattainment of the regional air quality standards. Instead, a project's emissions may be individually limited, but cumulatively considerable when taken in combination with past, present, and future development within the San Joaquin Valley Air Basin.

Per CEQA Guidelines §15064(h)(3) a Lead Agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program, including, but not limited to an air quality attainment or maintenance plan that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area in which the project is located.

Thus, if project specific emissions exceed the thresholds of significance for criteria pollutants the project would be expected to result in a cumulatively considerable net increase of any criteria pollutant for which the District is in non-attainment under applicable Federal or State ambient air quality standards. As discussed above, the Project construction and operational emissions will not exceed any significance threshold and would not contribute to a cumulatively considerable net increase of non-attainment criteria pollutants. Therefore, the District concludes that the Project related emissions will have a cumulatively less than significant impact on air quality.

d) *Expose sensitive receptors to substantial pollutant concentrations?*

Less than Significant Impact.

Under the Clean Air Act, toxic air contaminants (TACs) are airborne pollutants that may be expected to result in an increase in mortality or serious illness or which may pose a present or potential hazard to human health. Potential health impacts from TACs include long-term health effects such as cancer, birth defects, neurological damage, or genetic damage; or short-term effects such as eye watering, respiratory



irritation, throat pain and headaches. TACs may also be referred to as hazardous air pollutants (HAPs). There are currently more than seven hundred (700) substances classified by the US EPA and California Air Resources Board (CARB) as TACs. Air Quality problems occur when sources of TACs and sensitive receptors are located in proximity to one another.

TACs can be separated into carcinogens and non-carcinogens based on the nature of the physiological degradation associated with exposure to the pollutant. For regulatory purposes, carcinogens are assumed to have no safe threshold below which health impacts would not occur. Cancer risk is expressed as excess cancer cases per one million exposed individuals.

Non-carcinogens differ in that there is generally assumed to be a safe level of exposure below which no negative health impact would occur. These levels are determined on a pollutant-by-pollutant basis. Acute and chronic exposure to non-carcinogens is expressed by using a Hazard Index, which is the ratio of expected exposure levels to health-acceptable exposure levels established by California Air Pollution Control Officers (CAPCOA) in the *CAPCOA Prioritization Guidelines*.

- Carcinogens: Probability of contracting cancer for the Maximally Exposed Individual (MEI) exceeds twenty (20) in one million.
- Non-Carcinogens: Ground Level concentrations of non-carcinogenic TACs would result in a Hazard Index greater than one (1) for the MEI.

Sensitive receptors are defined as infants and children, the elderly, the chronically ill, and any other members of the general population who are more susceptible to the effects of exposure to environmental contaminants than the population at large. Additionally, the District includes in the definition of sensitive receptors locations occupied by groups of individuals that may be more susceptible than the general population to health risks from a chemical exposure and therefore include schools (public and private), day-care facilities, convalescent homes, parks, and hospitals.

Worksite receptors are also identified in the project. Worksite receptors are typically assessed at the location of a physical building; however, adjacent outdoor worksites at the Port of Stockton are comprised of many prolonged outdoor work scenarios; therefore placement of receptors can also be found in outdoor work yards.

Adverse health effects are expressed in terms of cancer or non-cancer health risks. Cancer risk is typically reported as "lifetime cancer risk," which is the estimated maximum increase in the risk of developing cancer caused by long-term exposure to a pollutant identified as being a carcinogen by the OEHHA. Non-cancer risk is typically reported as a Hazard Index (HI). The HI is calculated for each target organ (as determined by the California Office of Environmental Health Hazard Assessment



(OEHHA)) as a fraction of the maximum acceptable exposure level or Reference Exposure Level (REL) for an individual pollutant.

Project-related emissions are considered significant when the predicted increase in lifetime cancer risk exceeds 20 in 1 million (20×10^{-6}) and non-carcinogenic acute and chronic health effects, exposure affecting a single target organ, exceed a value of 1.0. The maximally exposed receptors for each type of adverse health impact are presented in Table 4.

Table 4: HRA Project Level Maximally Exposed Receptors

Health Impacts	Increased Cancer Risk	Maximum Hazard Index (Chronic)	Maximum Hazard Index (Acute)
Project	15.9E-06	0.06	0.0002
Threshold	20.0 in 1 million	1.0	1.0
Exceed District Threshold?	No	No	No

The Health Risk Assessment performed by the District, demonstrates that the Project will not exceed the levels of significance for Carcinogens and Non-Carcinogens. The acute and chronic indices are below 1.0 and the cancer risk associated with the Project is less than 20 in a million. Therefore, the District concludes that the Project related impacts on health will be less than significant.

e) Create objectionable odors affecting a substantial number of people?

Less than Significant Impact.

While offensive odors rarely cause any physical harm, they can be very unpleasant, leading to considerable distress among the public and often generate citizen complaints

During operation, diesel exhaust produced by trains and trucks could generate odors. However, the majority of the operation would occur within the confines of the Port. Odors from the product unloading area are not expected to be significant because of the low amount of fugitive emissions that would be generated and because the nearest residence is 4,500 feet away from the Project.



The District's *Guide for Assessing and Mitigating Air Quality Impacts (GAMAQI)* defines a significant odor impact as either:

- More than one (1) confirmed complaint per year averaged over a three (3) year period, or
- Three (3) confirmed complaints per year averaged over a three (3) year period.

The District searched its Compliance Database for the NuStar facility. There have been zero complaints for the facility during the three year period from 2017 through 2019 and zero complaints year to date for 2020.

Operational emissions from the product unloading area are not expected to be significant because of the low amount of fugitive emissions that would be generated and the distance (4,500 feet) of the product unloading area from residences.

Therefore, the District concludes that there is no substantial evidence of record to support a conclusion that the Project would create objectionable odors affecting a substantial number of people. As such, the District concludes that the Project will have a less than significant impact on odors.



IV. BIOLOGICAL RESOURCES

IV. BIOLOGICAL RESOURCES Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?			X	
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations, or by the California Department of Fish and Game or US Fish and Wildlife Ser				X
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 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?				X
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?			X	
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
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?				X



- 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?**

Less than Significant Impact.

Special-status species are defined as species that are legally protected under the California Endangered Species Act (CESA) and federal Endangered Species Act (ESA) or other regulations, or species considered sufficiently rare by the scientific community to qualify for such listing. The District reviewed and concurred with the information provided regarding special-status species that have the potential to occur in the Project area and were identified from (1) United States Fish and Wildlife Service (USFWS) Species Lists, (2) from a search of the California Natural Diversity Database (CNDDDB), and (3) from the California Native Plant Society (CNPS) List for the U.S. Geological Survey (USGS) Stockton West 7.5-minute quadrangle and surrounding quadrangles (Terminous, Lodi South, Waterloo, Stockton East, Manteca, Lathrop, Union Island, and Holt; California Department of Fish and Wildlife [CDFW] CNDDDB 2019). Therefore, the District concludes that the Project will have a less than significant impact on species identified as a candidate, sensitive or special status species.

Table 7 in Appendix D lists special-status species potentially present in the Project area.

- b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?**

No Impact.

There are no known riparian habitats or other sensitive natural communities within the proposed Project footprint. No other sensitive habitats are present within the Project site and no impacts are anticipated to occur to sensitive natural communities. There are 20 plant species considered rare, threatened, or endangered by the CNPS (a CNPS Rank 1 or 2 species) with recorded occurrences in the vicinity of the Project site, as identified through a search of the proposed Project quadrangle and eight surrounding quadrangles (CDFW CNDDDB 2019). Of these 20 species, two are state or federal endangered: palmate-bracted bird's-beak (*Chloropyron palmatum*; federal and state endangered) and Delta button-celery (*Eryngium racemosum*; state endangered). Due to the lack of suitable habitats within the Project area, none of the special-status plant species with recorded occurrences has the potential to occur within the Project site. Therefore, the District concludes that the Project will have no impact on riparian habitat or other sensitive natural community identified.



Table 8 in Appendix D presents the CNPS list of plant species with the potential to occur in the Project area.

- c) *Have a substantial adverse effect on federally protected wetlands as defined by Section 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?***

No Impact.

There are no known wetlands or jurisdictional waters within the proposed Project footprint where a Project activity may provide impacts. The storm water swales are likely non-jurisdictional and are located outside the Project site, although storm water from the Project site is likely conveyed to these features.

Storm water runoff from the Project site would continue to be conveyed to the existing swales. The Project would adhere to the requirements of the National Pollutant Discharge Elimination System (NPDES) Construction Storm water General Permit to avoid significant water quality impacts during construction. Operation of the proposed Project would not be a source of contaminated runoff, and would not otherwise adversely affect the non-jurisdictional wetlands or waters within the swales. Therefore, the District concludes that the Project will have no impact on federally protected wetlands.

- 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?***

Less than Significant Impact.

The Project area is along the Pacific Flyway, which is an established air route of waterfowl and other birds migrating between wintering grounds in Central and South America and nesting grounds in Pacific Coast states and provinces of North America. However, the small size of the potential impact area and lack of aquatic features or high-quality vegetation communities preclude migratory bird species from using the Project site as a stopover during their migration. Therefore, the District concludes that the Project will have a less than significant impact on the movement of native wildlife.

- e) *Conflict with any local applicable policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?***

No Impact.



The Project would not remove any trees and therefore would not conflict with the Stockton Heritage Tree ordinance. There are no other local policies or ordinances for protecting biological resources that are applicable to the Project site. Therefore, the District concludes that the Project will have no impact related to potential conflicts with local policies.

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?

No Impact.

The Project would not conflict with the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan. Therefore, the District concludes that the Project will have no impact on an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other local, regional, or state habitat conservation plan.

V. CULTURAL RESOURCES

V. CULTURAL RESOURCES Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in '15064.5?				X
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to '15064.5?			X	
c) Disturb any human remains, including those interred outside of formal cemeteries?				X

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

No Impact.

The Project does not involve the modification or demolition of any historical structures. Project-related activities are consistent with current site activities, and would not alter the existing cultural setting (an industrial zone of the Port). Based on a recent search of the California Historical Resources Information System, there are no recorded historical resources in the Project area (Port 2017). Therefore, the District concludes that the Project will have no impact on historical resources.



b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Less than Significant Impact.

Project-related construction activities involve only limited subsurface disturbance. Because the site is a developed industrial facility, archaeological resources are suspected as minimal because the dominant land use has been for industrial uses. Thus, any archeological artifacts that might have been present may have been destroyed or have been moved off-site during the development of the site. Therefore, the District concludes that the Project will have a less than significant impact on archaeological resources.

c) Disturb any human remains, including those interred outside of formal cemeteries?

No Impact.

The Project site is a developed industrial facility. Human remains are not known to exist at the subject site. If human remains might have been present, they may have been destroyed or have been moved off-site during the development of the site. Standard protocol in compliance with existing regulations would require such a discovery to be immediately reported to the County Coroner. If remains were found and were determined to be Native American in origin, both the Native American Heritage Commission and any identified descendants shall be notified by the coroner and recommendations for treatment solicited (CEQA Section 15064.5; Health and Safety Code Section 7050.5; Public Resources Code Section 5097.94 and 5097.98). Therefore, the District concludes that the Project will have no impact on human remains.



VI. ENERGY

VI. ENERGY Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation?			X	
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?				X

Global Warming Solutions Act 2006

The Global Warming Solutions Act aims to reduce greenhouse gas (GHG) emissions in California to 1990 levels by 2020. CARB developed several transportation-related measures to achieve state GHG reduction goals, including a clean fuels standard known as the Low Carbon Fuel Standard (LCFS). California’s LCFS was adopted in 2009 (amended in 2018) and is a performance-based standard requiring petroleum refiners and other fuel providers to reduce the carbon-intensity of transportation fuels used in California by at least 20 percent by 2030. RD has a 50 to 85 percent lower carbon intensity than standard diesel fuels.

California 2008 Energy Action Plan Update

The California Public Utilities Commission, the California Energy Commission, and the California Power Authority developed the California Energy Action Plan. Its purpose is to identify how California will ensure that its energy is affordable, environmentally friendly and up to date with the best technology. The main factors evaluated within the plan include energy efficiency, demand response, renewable energy, reliability, market structure, research, development, and climate change.

San Joaquin General Plan 2035

The General Plan 2035 (San Joaquin County 2017) establishes the vision for the county’s future development and a strategy on how to accomplish that vision. The plan addresses issues faced by the county as it continues to grow, in order to increase the general well-being of the community through the county’s physical, economic and social development. Within the plan, Community Development goals are to encourage the industrial development of energy and renewable energy for the county.

The City updated and adopted its 2040 General Plan on 4 December 2018. This plan is the community’s overarching policy document that defines a vision for future change and guides the location and character of development, with the intent of enhancing the



local economy, conserving resources, improving public services and safety, and fostering community well-being (City 2018).

In addition, the following recently promulgated regulations encourage efficient energy usage:

- Senate Bill (SB) SX1-2 requires the state of California to produce 33 percent of its electricity from renewable sources by 31 December 2020.
- SB 350 requires that the state produce 50 percent of its electricity from renewable sources by 31 December 2030.
- SB 100 requires that the state produce all electricity from renewable sources by 2045.

The City and Port of Stockton have also established policies related to energy conservation. The NuStar facility currently obtains energy from local providers, including gas and electricity from the Pacific Gas and Electric Company.

a) *Would the Project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?*

Less than Significant Impact.

The energy demand associated with these activities would primarily involve fuel use by construction equipment and waste transportation vehicles.

Project construction activities would occur over a period of approximately six (6) months. Energy consumption during the construction activities would be limited by general best management practices (BMPs), implemented by NuStar, such as shutting off equipment and vehicles when not in use or limiting idling times, properly maintaining construction equipment in accordance with manufacturer specifications, and conducting routine inspection of equipment and vehicles to identify any wasteful leakage of fuel or oil. Contractors and their employees will be trained to adhere to these protocols prior to starting construction.

To further reduce project related impacts on the environment, NuStar has committed to requiring construction contractors to use Tier 4 engines in construction equipment. If construction equipment with Tier 4 engines are not available, NuStar will require that retrofits be installed such that emission reductions achieved equal or exceed that of a Tier 4 engine. To implement the project proponent's commitment, the following permit condition will be added to the permit issued by the District:

All off-road diesel-powered heavy duty equipment exceeding 50 horsepower used to construct the Project must be equipped with Tier 4 engines, except when Tier 4



engines are not available. When Tier 4 engines are not available, NuStar will require that retrofits be installed, such that emission reductions achieved equal or exceed that of a Tier 4 engine. [California Environmental Quality Act, Negative Declaration, #20191304].

For Project operation, the Project uses existing tanks and structures. It does not involve the construction of any new building or tanks that would require additional energy consumption by NuStar. The energy usage in regards to the delivery of RD to NuStar will be minimized through the addition of train cars to the existing train trips instead of adding new train trips. In addition, trucks hauling RD out of NuStar are subject to State and Federal fuels regulation standards which require increasingly energy efficient engines.

Additionally, the Project's goal is to increase the amount of RD available to San Joaquin County to provide a transportation fuel that has lower GHG emissions than conventional fuels, in turn supporting both federal, state, and local policies for energy/fuel conservation.

Therefore, the District concludes that the project will have a less than significant impact on energy consumption.

b) Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No Impact.

The goal of the Project is to provide storage and transportation for fuels that meet the federal, state, and local standards for low carbon intensity fuel. The Project will not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Therefore, the District concludes that the Project will have no impact on a state or local plan for renewable energy or energy efficiency.



VII. GEOLOGY / SOILS

VII. GEOLOGY / SOILS Would the Project	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) 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? Refer to Division of Mines and Geology Special Publication 42.			X	
ii) Strong seismic ground shaking?			X	
iii) Seismic-related ground failure, including liquefaction?			X	
iv) Landslides?			X	
b) Result in substantial soil erosion or the loss of topsoil?			X	
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?			X	
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?			X	
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?				X

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

- i. 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? Refer to Division of Mines and Geology Special Publication 42;
- ii. Strong seismic ground shaking?
- iii. Seismic-related ground failure, including liquefaction?
- iv. Landslides?



Less than Significant Impact.

The Project site is not located within a currently designated Alquist-Priolo Earthquake Fault Zone and there are no known active faults within 25 miles of the site.

In the event of a major earthquake along one of the regional faults, the Project site could experience strong seismic ground shaking, which could damage buildings and structures. The Project would be limited to the installation of equipment and aboveground RD transfer infrastructure. These features could be damaged in the event of an intense ground-shaking event. However, the Project would be constructed in adherence with all applicable seismic standards and building codes and would include spill control measures and emergency equipment and protocols in the event of an extreme seismic event.

Some of the stratigraphic units (silts and sands) at the Project site could be susceptible to liquefaction in response to a seismic event. The Project activities would not involve the addition of materials in the subsurface that would increase liquefaction potential.

A significant risk of landslides is not posed by current site conditions due to the generally flat topography of the Project site. Therefore, the District concludes that the Project will have a less-than-significant impact with regard to seismic-related ground failure and landslides.

As such, the District concludes that the Project will have a less than significant impact related to earthquake, strong seismic ground shaking, and seismic-related ground shaking leading to liquefaction, and seismic-related ground failure and landslides.

b) Result in substantial soil erosion or the loss of topsoil?

Less than Significant Impact.

The current ground surface at the Project site is covered with concrete, gravel, or highly compacted soils. The Project would involve limited disturbance of subsurface soil (2 areas approximately 20 feet long and 5 feet wide, for installation of short piping segments beneath roadways). However, BMPs would be implemented by NuStar per Stockton Municipal Code 15.48.110 which states *“The Community Development Department shall upon issuing a Building Permit, delineate the required erosion control requirements (BMPs) as necessary to ensure compliance with the City’s NPDES permit, State law and Federal regulations.”* The Community Development Department will select site specific BMO’s based on site topography, critical areas, soil properties, existing vegetation, and existing and future proposed drainage facilities. Surfaces would be restored to pre-construction conditions



following installation of the piping segments. Surface soils at the site would not be disturbed during the operational period of the Project. Therefore, the District concludes that the Project will have a less than significant impact related to soil erosion or topsoil loss.

- 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?***

Less than Significant Impact.

The Project site is relatively flat. In addition, the Project site is not situated on unstable geologic materials expected to be susceptible to subsidence, lateral spreading, liquefaction, or collapse. Most of the construction activities would occur above ground, and as such, would not change the characteristics of soils at the Project site or result in soil instability, or foundation weaknesses. During the excavation phase of work, there would be a potential for slope instability along the excavation walls; however, after the piping is installed, the excavations would be backfilled to the original (pre-excavation) ground surface. Project-related site activities performed during the operational phase would occur above ground and would not affect geologic conditions. Therefore, the District concludes that the Project will have a less than significant impact related to landslides, 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?***

Less than Significant Impact.

Expansive soils may be present at the Project site. Excavations for piping installation would be backfilled with excavated soil, which would not be susceptible to shrinkage/swelling. The proposed aboveground terminal modifications would not change the characteristics of soils at the Project site, and would not result in shrinkage/swelling of site soils. Other site activities performed during the operational phase would occur above ground and would not affect geologic conditions. Therefore, the District concludes that the Project will have a less than significant impact on expansive soil.

- 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?***

No Impact.

The Project does not include a waste disposal system. Therefore, the District concludes that the Project will have no impact on wastewater disposal systems.



VIII. GREENHOUSE GAS EMISSIONS

VIII. GREENHOUSE GAS EMISSIONS Would the Project	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			X	

GREENHOUSE GAS EMISSIONS

Greenhouse Gases (GHGs) are gases that absorb and emit radiation within the thermal infrared range, trapping heat in the earth’s atmosphere. There are no “attainment” standards established by the Federal or State government for GHGs. In fact, GHGs are not generally thought of as traditional air pollutants because GHGs, and their impacts, are global in nature, while traditional “criteria” air pollutants affect the health of people and other living things at ground level, in the general region of their release to the atmosphere. Some GHGs occur naturally and are emitted into the atmosphere through natural processes. Other GHGs are created and emitted solely through human activities. The principal GHGs that enter the atmosphere because of human activities are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and fluorinated carbons. Additional information on GHG and global climate change can be found in the District staff report titled: *Addressing Greenhouse Gas Emissions Impacts Under the California Environmental Quality Act*.

Assembly Bill 32 (AB32)

Assembly Bill 32 (California Global Warming Solutions Act of 2006) is a key piece of California’s effort to reduce its GHG emissions. AB 32 was adopted establishing a cap on statewide greenhouse gas emissions and sets forth the regulatory framework to achieve the corresponding reduction in statewide emissions levels. AB 32 requires CARB to establish regulations designed to reduce California’s GHG emissions to 1990 levels by 2020. In executing its legislative mandate under AB 32, CARB developed a Scoping Plan that contains the main strategies California will use to reduce GHG from Business-as-Usual (BAU) emissions projected from 2020 levels back down to 1990 levels. BAU is the projected emissions caused by growth, without any GHG reduction



measures. CARB determined that a 29% reduction from BAU is necessary to achieve the 1990 GHG emissions level.

On December 11, 2008, CARB adopted its AB 32 Scoping Plan, setting a framework for future regulatory action on how California will achieve the goal of reducing GHG emissions to 1990 levels. The AB 32 Scoping Plan identifies a Cap and Trade program as one of the strategies California will employ to reduce the GHG emissions that cause climate change. The Cap and Trade program is implemented by the California Air Resources Board (CARB) and caps GHG emissions from the industrial, utility, and transportation fuels sectors-which account for roughly 80% of the state's GHG emissions. As of 2015-2017, AB 32 includes distributors of transportation fuels (including gasoline and diesel).

Executive Order B-30-15

On April 20, 2015, Executive Order (EO) B-30-15 was signed into law to establish a California GHG reduction target of 40 percent below 1990 levels by 2030. The EO aligns California's GHG reduction targets with those of leading international governments such as the 28-nation European Union which adopted the same target in October 2014. California is on track to meet or exceed the target of reducing GHG emissions to 1990 levels by 2020, as established in the California Global Warming Solutions Act of 2006 (Assembly Bill 32, discussed above). California's new emission reduction target of 40 percent below 1990 levels by 2030 will make it possible to reach the ultimate goal of reducing emissions 80 percent below 1990 levels by 2050. This is in line with the scientifically established levels needed in the U.S. to limit global warming below 2 degrees Celsius, the warming threshold at which major climate disruptions are projected, such as super droughts and rising sea levels.

Senate Bill 32 and Assembly Bill 197

In August 2016, SB 32 and AB 197 were signed into law, which serve to extend California's GHG reduction programs beyond 2020. SB 32 amended the Health and Safety Code to include Section 38566, which contains language to authorize CARB to achieve a statewide GHG emission reduction of at least 40 percent below 1990 levels by no later than December 31, 2030. SB 32 codified the targets established by EO B-30-15 for 2030, which set the next interim step in the State's continuing efforts to pursue the long-term target expressed in EOs S-3-05 and B-30-15 of 80 percent below 1990 emissions levels by 2050. Achievement of these goals will have the co-benefit of reducing California's dependency of fossil fuels and making land use development and transportation systems more energy efficient.



Additionally, there are several other regulations for reducing GHGs exist at the federal, state, and local levels. The two most applicable to the Project are as follows:

- **Governor’s Executive Order S-01-07 (January 2007) and Low Carbon Fuel Standards (approved April 2009, effective April 2010).**
EO S-01-07 was enacted by then-Governor Schwarzenegger on 18 January 2007. The executive order mandated that a statewide goal be established to reduce the carbon intensity of California’s transportation fuels by at least 10 percent by 2020, and that an LCFS for transportation fuels be established for California (CARB 2016). The Project would help achieve this goal by bringing in additional RD.
- **City of Stockton General Plan.**
The City updated and adopted its 2040 General Plan on 4 December 2018, which includes new GHG measures. The updated plan included the following measure that is applicable to the Project:
 - Policy CH-5.2: Expand opportunities for recycling, reuse of materials, and waste reduction. Action CH-5.2B: Continue to require recycling in private and public operations, including construction/demolition debris.

District CEQA Policy

CEQA requires each public agency to adopt objectives, criteria, and specific procedures consistent with CEQA Statutes and the CEQA Guidelines for administering its responsibilities under CEQA, including the orderly evaluation of projects and preparation of environmental documents. On December 17, 2009, the District adopted the policy “*District Policy (APR 2005) – Addressing GHG Emissions Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency*” and approved the District’s guidance document for use by other agencies when addressing GHG impacts as lead agencies under CEQA. The policy applies to all District permitting projects that have an increase in GHG emissions, regardless of the magnitude of the increase. Under this policy, the District’s determination of significance of project-specific GHG emissions is founded on the principal that projects with GHG emission reductions consistent with AB 32 emission reduction targets are considered to have a less than significant impact on global climate change.

In addition, the District also established the policy “*APR 2025 - CEQA Determinations of Significance for Projects Subject to ARB’s GHG Cap-and-Trade Regulation*”. The AB 32 Scoping Plan identifies a Cap-and-Trade program as one of the strategies California will employ to reduce the greenhouse gas (GHG) emissions that cause climate change. The Cap-and-Trade program is implemented by the California Air Resources Board and caps GHG emissions from the industrial, utility, and transportation fuels sectors – which account the majority of the state’s GHG emissions.



The program works by establishing a hard cap on about 85 percent of total statewide greenhouse gas emissions. The cap level is set to ensure California complies with AB emission reduction target of returning the GHG emission levels to the required levels per the Scoping Plan.

The scope of GHG emission sources subject to Cap-and-Trade includes:

- All electricity generated and imported into California. The first deliverer of electricity into the state is the capped entity (the one that will have to purchase and surrender allowances).
- Large industrial facilities emitting more than 25,000 metric tons of GHG pollution/year. Examples include oil refineries and cement manufacturers.
- Distributors of transportation fuels (including gasoline and diesel), natural gas, and other fuels. The regulated entity will be the fuel provider that distributes the fuel upstream (not the gas station).

Of specific relevance to Cap-and-Trade is the provision that: “Projects complying with an approved GHG emission reduction plan or GHG mitigation program, which avoids or substantially reduces GHG emissions within the geographic area in which the project is located, would be determined to have a less than significant individual and cumulative impact for GHG emissions.

In summary, all GHG emission increases resulting from the combustion of any fuel produced, imported and/or delivered in California are mitigated under Cap-and-Trade, either directly or indirectly by facilities identified above. The District finds that, through compliance with the Cap-and-Trade regulation, project-specific GHG emissions that are covered by the regulation will be fully mitigated.

a) Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less than Significant Impact.

Construction and operation of the NuStar project would result in greenhouse gas emissions from locomotive and truck engines. Greenhouse gases associated with construction and operations of NuStar include CO₂ emissions.

Construction-related emissions were calculated using CalEEMod Version 2016.3.2 (see Appendix A). These emissions will be amortized over 30 years (9 metric tons per year). Operational emissions include locomotives (470 metric tons per year) and haul trucks (2,181 metric tons per year).



To further reduce project related impacts on the environment, NuStar has committed to requiring construction contractors to use Tier 4 engines in construction equipment. If construction equipment with Tier 4 engines are not available, NuStar will require that retrofits be installed such that emission reductions achieved equal or exceed that of a Tier 4 engine. To implement the project proponent's commitment, the following permit condition will be added to the permit issued by the District:

All off-road diesel-powered heavy duty equipment exceeding 50 horsepower used to construct the Project must be equipped with Tier 4 engines, except when Tier 4 engines are not available. When Tier 4 engines are not available, NuStar will require that retrofits be installed, such that emission reductions achieved equal or exceed that of a Tier 4 engine. [California Environmental Quality Act, Negative Declaration, #20191304].

As discussed above, AB32 includes distributors of transportation fuels (including gasoline and diesel) in the Cap-and-Trade regulation. This accounts for combustion of fossil fuels including transportation fuels used in California (on and off road including locomotives). The regulated entity will be the fuel provider that distributes the fuel upstream (not the gas station). Therefore, mobile sources, and off-road sources associated with the Project are covered under Cap-and-Trade regulation.

Additionally, the Project would follow guidelines set in the 2035 San Joaquin County General Plan, which has established a GHG reduction target for 2020 and goals for 2035 and 2050 in order to be consistent with State statutes established by AB 32 and State objectives stated in Executive Order S-3-05. The 2020 target establishes a firm, near-term standard that must be met of 15 percent below 2007 levels by 2020, following guidance from the CARB. This reduction is deemed by CARB to be consistent with the statewide AB 32 goal of reducing emissions to 1990 levels (San Joaquin County 2014).

Furthermore, as discussed above, the Project would also follow guidelines set by the "Governor's Executive Order S-01-07 (January 2007) and Low Carbon Fuel Standards", and the City of Stockton's General Plan Policy CH-5.2. The Project would also be consistent with District CEQA policy.

As such, the District concludes that the Project will not conflict with an applicable plan, policy, or regulation for the purpose of reducing greenhouse gas emissions and the Project will have a less than significant impact on applicable GHG plans, policies or regulations.



b) Would the Project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less than Significant Impact.

As discussed above, activities from the Project is subject to Cap and Trade regulation, the San Joaquin County General Plan GHG reduction target for 2020 and goals for 2035 and 2050, as well as the “Governor’s Executive Order S-01-07 (January 2007) and Low Carbon Fuel Standards”, and the City of Stockton’s General Plan Policy CH-5.2. The Project would also be consistent with District CEQA policy.

In addition, the Project would likely reduce region-wide GHG emissions by increasing the RD supply within California to meet carbon intensity goals for transportation fuels, which is consistent with state policies. RD is a component of California’s Low Carbon Fuel Standard (LCFS), and use of RD will help the state meet overall GHG reduction goals. Therefore, the Project would have a less than significant impact.

As such, the District concludes that the Project will not conflict with an applicable plan, policy, or regulation for the purpose of reducing GHG emissions. Therefore, the District concludes that the Project will have a less than significant impact on applicable GHG plans, policies or regulations.



IX. HAZARDS & HAZARDOUS MATERIALS

IX. HAZARDS & HAZARDOUS MATERIALS Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?			X	
e) Result in a safety hazard for people residing or working in the Project area for projects 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,?				X
f) Result in a safety hazard for projects within the vicinity of a private airstrip, for people residing or working in the Project area?				X
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
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?				X



a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less than Significant Impact.

The potential for hazards due to transport, use, or disposal of hazardous materials would exist during the construction phase of the Project as follows:

- During excavations to install piping, impacted soils or groundwater could be encountered, requiring special handling and off-site disposal. Such encounters are common in construction areas with historical industrial uses. Construction contractors are familiar with the appropriate responses, and are required to train their workers regarding the identification and handling of hazardous materials, develop contingencies for responding to the discovery of contaminated materials, and comply with established measures to protect human health and the environment.
- Project-related construction activities would involve the use of equipment that contains oil, gas, or hydraulic fluids that could be accidentally released during normal use or during refueling. Development and implementation of a Storm Water Pollution Prevention Plan would be required for construction activities. Adherence to this plan and use of other general construction BMPs would reduce the likelihood of adverse impacts related to hazardous construction materials.

Management and transport of hazardous wastes generated during the Project construction phase would be performed in accordance with all state, federal, and local regulations. Adherence to applicable regulations would minimize the exposure of construction workers to hazardous materials and potential impacts to the environment.

Current operations at the NuStar facility include storage and transport of bulk petroleum products, including ethanol, gasoline, naphtha, diesel, RD, biofuels, and lubricants. These products are highly flammable and may be hazardous if improperly managed. Bulk petroleum product shipments are delivered to the NuStar facility via rail and truck. Under the proposed Project, the number of RD deliveries and outgoing shipments would increase. The increase in incoming deliveries would be relatively small, an increase of approximately seven rail cars per day. NuStar follows well-established procedures for handling bulk fuel oil during unloading and loading events, in accordance with its comprehensive Facility Response Plan, and has not experienced any recent fuel oil releases.

The Terminal piping installed underground as part of the Project would be tested hydrostatically to confirm integrity prior to and after installation. In addition, NuStar routinely conducts inspections and integrity testing of piping and tanks at the facility. The storage tanks that would be converted to RD use have secondary containment



that is sized to contain releases from the tanks. Releases from piping outside secondary containment would flow to and be contained within storm water holding ponds on site. Therefore, the potential for uncontrolled off-site product releases from piping and tanks during facility operations would be minimized.

The operational phase of the Project would be similar to current operations, which are performed in accordance with a site-specific SPCC Plan prepared by NuStar (Technical Response Planning, updated in October 2018). These activities are also subject to federal, state, and local regulations that govern the storage and handling of hazardous materials. Adherence to these regulations would limit the severity and frequency of potential releases of hazardous materials resulting in health hazards. Additionally, the Fire Department would provide oversight for the handling, storage, and use of any explosive or other hazardous material. Therefore, the potential for Project-related hazardous material impacts through the routine transport, use, or disposal of hazardous materials during the operational phase of the Project would be comparable to that under existing conditions.

Based on the above considerations, the District concludes that the potential for Project-related hazardous material impacts through the routine transport, use, or disposal of hazardous materials will be less than significant.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less than Significant Impact.

The Project would be located at existing NuStar Terminal Facility at the Port of Stockton. As stated in Item (a), above, under the current site operations, NuStar handles bulk petroleum products, including ethanol, gasoline, naphtha, diesel, RD, biofuels, and lubricants. Operations involve the receipt and transfer of these products, which may be hazardous if improperly managed. The land-based transport, use, and disposal of potentially hazardous materials at the Project site would be managed as under current conditions in adherence with federal, state, and local regulations designed to minimize the potential for accidents. The SPCC Plan identifies inspection and integrity testing requirements for operational equipment that could be subject to releases, including pipelines and tanks. These routine inspection/testing activities reduce the potential for accidental releases. Additionally, all aboveground elements of the Project are within secondary containment or within an area in which surface runoff flows to storm water holding ponds on site. These design features reduce the possibility of off-site releases resulting from spills or leaks from tanks and piping. The facility SPCC Plan would be updated to reflect the additional elements introduced under the Project.



The Fire Department is also equipped to provide response in the unlikely event of a site accident. Therefore, the District concludes that the potential for hazardous material impacts through upset/accident conditions would be comparable to that under existing conditions. As such, the District concludes that the Project will have a less than significant impact on hazard to the public or the environment through upset and accident conditions involving the release of hazardous materials into the environment.

c) *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*

No Impact.

The nearest school to the Project site is the Washington Elementary School, approximately 1 mile to the east. No school is proposed within the 0.25-mile radius of the Project and given the area's zoning (Port or Industrial, General), it is unlikely that a school would be constructed within this radius. Therefore, the District concludes that the Project will have no impact on hazardous emissions.

d) *Be located on a site which is included on a list of hazardous materials lists compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?*

Less than Significant Impact.

The NuStar terminal is currently listed as an RWQCB cleanup site with an open status and ongoing groundwater verification monitoring. The NuStar terminal soils and groundwater contain petroleum hydrocarbons and related constituents as a result of historical site operations. In addition, soils and groundwater associated with other listed terminal sites in the immediate Project site vicinity are impacted with petroleum products and related constituents, and fertilizer constituents.

Only the construction phase of the Project activities involves limited subsurface disturbance, associated with excavations to install piping beneath facility access roads. During those activities, impacted soils or groundwater could be encountered, requiring special handling and off-site disposal. Such encounters are common in construction areas with historical industrial uses. Construction contractors are familiar with the appropriate responses, and are required to train their workers regarding the identification and handling of hazardous materials, develop contingencies for responding to the discovery of impacted materials, and comply with established measures to protect human health and the environment. Any disturbance of potentially contaminated media would be in compliance with federal, state, and local regulations developed to protect workers and other sensitive receptors from exposure to hazardous materials. Therefore, the District concludes



that the Project will have a less than significant impact on hazardous materials or creating a hazard to the public or 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?**

No Impact.

The Project site is not within an airport land use plan area, and the nearest public use airport (Stockton Metropolitan Airport) is approximately 5 miles to the southeast. There are no private airstrips or airports in the immediate Project vicinity. Therefore, the District concludes that the Project will have no impact on safety hazard for residents.

- f) For a project within the vicinity of a private airstrip, would the project would the project result in a safety hazard for people residing or working the project area?**

No Impact.

There are no private airstrips or airports in the immediate Project vicinity. Therefore, the District concludes that the Project will have no impact on safety hazard for residents.

- g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?**

No Impact.

The Project site would be subject to the San Joaquin County Emergency Operations Plan. The Emergency Operations Plan was developed in consideration of industrial activities within Stockton, including the terminals in the Project site vicinity, which have been in operation for several decades. The USCG has also developed emergency response plans as part of its hazardous materials management programs. The Fire Department is additionally prepared to respond during an emergency event.

The Project would occur on private property and would not block or add significant vehicular traffic to any roadways used for emergency ingress/egress. Project-related activities would not otherwise interfere with implementation of applicable emergency response or emergency evacuation plans. Therefore, the District concludes that the Project will have no impact on emergency response plans or evacuation plans.



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?

No Impact.

The NuStar facility is within a heavily industrialized area of Stockton and no wildlands or other areas exist in the immediate Project site vicinity that could be susceptible to wildland fires. The site is not located within a designated fire hazard severity zone. The construction and operation phases of the Project would not expose individuals or structures to any wildland fire risks. Therefore, the District concludes that the Project will have no impact on exposing people or structures to risk of loss due to wildland fires.



X. HYDROLOGY / WATER QUALITY

X. HYDROLOGY / WATER QUALITY Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?			X	
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that the project may impeded sustainable groundwater management of the basin?				X
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would: i) result in substantial erosion or siltation on-or off-site; ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-or offsite; iii) 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; or iv) impede or redirect flood flows?				X
d) Risk release of pollutants due to project inundation in flood hazard, tsunami, or seiche zones?				X
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?				X

a) Violate any water quality standards or waste discharge requirements?

Less than Significant Impact.

The proposed construction activities involve minimal disturbance of soil that could introduce pollutants to storm water or surface water. Soil removed from the subsurface in these areas would be used to backfill the piping excavations that occur for piping installation.



The Project design includes active and passive spill control measures to reduce the potential for spills during the operational phase of the Project.

The Project would be located at existing NuStar Terminal Facility at the Port of Stockton. If the piping installed for the Project or the tanks used for the RD were to fail, the released product could affect surface or groundwater water quality. This potential also exists under current conditions for the products currently being stored on site. In accordance with federal and state regulations, NuStar operations are conducted in accordance with an SPCC Plan documenting the protocols and response equipment that would be used to prevent spills, and in the event of a spill, to contain the release and neutralize the potential harmful impacts. The storage tanks that would be used for RD are situated within secondary containment adequately sized for their contents if released from the tanks. Runoff from areas outside secondary containment flows to storm water holding ponds on site. With these design features, the potential is reduced for spills or leaks to be released off site. Therefore, the District concludes that the Project will have a less than significant impact on water quality standards or waste discharge requirements.

- b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that the project may impeded sustainable groundwater management of the basin?***

No Impact.

The Project would not use groundwater as a source of water during either the construction or operational phase. In addition, in the limited areas where the ground surface would be disturbed, the ground surface in those areas would be returned to pre-Project conditions; the Project would not add impervious surfaces that could decrease groundwater recharge. Therefore, the District concludes that the Project will have no impact on the groundwater supplies or recharge.

- c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner which would:***

- i) Result in substantial erosion or siltation on-or off-site;*
 - ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-or offsite;*
 - iii) create or contribute runoff water which would exceed the capacity of existing or planned drainage systems or provide substantial additional sources of polluted runoff;*
- or*
- iv) impede or redirect flood flows?*

No Impact.



During construction activities, no new impervious surfaces would be added. New aboveground features would be installed at the Project site as part of the Project, but the footprint of these features is relatively small and would not significantly affect surface runoff patterns. Therefore, the District concludes that the Project will have no impact on the groundwater supplies or recharge.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

No Impact.

The Project site is not in an area that is subject to inundation by seiche or tsunami, and it does not exhibit topographic variations that would induce the occurrence of mudflows. Therefore, the District concludes that the Project will have no impact due to project inundation.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

No Impact.

The Project would not use groundwater as a source of water during either the construction or operational phase. In addition, in the limited areas where the ground surface would be disturbed, the ground surface in those areas would be returned to pre-Project conditions; the Project would not add impervious surfaces that could decrease groundwater recharge. Therefore, the District concludes that the Project will have no impact on the groundwater supplies or recharge.

During construction activities, no new impervious surfaces would be added. New aboveground features would be installed at the Project site as part of the Project, but the footprint of these features is relatively small and would not significantly affect surface runoff patterns comparable to that under existing conditions. Therefore, the District concludes that the Project will have no impact on water quality control plan or sustainable groundwater management plan.



XI. LAND USE / PLANNING

XI. LAND USE / PLANNING Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?				X
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				X

a) Physically divide an established community?

No Impact.

The Project involves modifications to the existing NuStar facility that are consistent with the current zoned land use. Therefore, the District concludes that the Project will have no impact on 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?

No Impact.

The Project involves modifications to the existing NuStar facility that are consistent with the current zoned land use. Additionally, the Project would not conflict with any policy or regulation adopted for the purpose avoiding an environmental effect. Therefore, the District concludes that the Project will have no impact on land use and planning.



c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impact.

The San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) was developed by the San Joaquin Council of Governments (SJCOG) and adopted by the County and the County’s cities in 2000 to offset biological impacts created by projects within San Joaquin County. The SJMSCP covers all of San Joaquin County except for federally owned land. The stated purpose of the SJMSCP is to provide a strategy for balancing a need to conserve open space with a need to convert open space to other uses, while protecting the area’s agricultural economy, preserving landowner rights, accommodating a growing population, and providing for long-term management of special status species (San Joaquin County 2009). The proposed project would be consistent with the Plan. Therefore, no conflict with the SJMSCP would occur, and the District concludes that the Project will have no impact with any applicable habitat conservation plan or natural community conservation plan.

XII. MINERAL RESOURCES

XII. MINERAL RESOURCES Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?				X
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?				X

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?

No Impact.

Continued development of the area would not limit access to any known mineral resources. As a result, the Project would neither interfere with any existing extraction operations nor reduce the availability of any known mineral resources. Therefore, the District concludes that the Project will have no impact on mineral resource loss.



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?

No Impact.

The Project area does not include a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. Therefore, the District concludes that the Project will have no impact on mineral resource availability.

XIII. NOISE

XIII. NOISE Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			X	
b) Generate excessive groundborne vibration or groundborne noise levels?			X	
c) Expose people residing or working in the project area, for a project located within the vicinity of a private airstrip or 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, to excessive noise levels?				X

a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies??

Less than Significant Impact.

The Project would involve temporary construction activities that would occur at the terminal over a period of six months. The primary sources of noise during construction at the site would be from operation of equipment such as cranes, forklifts, and trucks. Sound attenuates rapidly with distance from the source. At the closest distance where sensitive receptors would be present (4,500 feet from the



terminal), sound levels from the Project would not exceed the 70 dB(A) threshold for residential areas. Additionally, noise levels at the property boundary would not exceed the 80 dB(A) threshold for maximum sound level prescribed by the City of Stockton Municipal Code. This assessment is conservative. The District reviewed assessments for the Project construction equipment which were made using the Federal Transit Administration 2018 and DEFRA 2006, Update of Construction Plant Noise Database and the Federal Highway Administration, Roadway Construction Noise Model User Guide which assumed that the equipment operates for at least a portion of each hour during the day, whereas in practice all equipment may not operate within the same hour, and not all equipment will operate for the entire duration of the construction phase. Noise generated from construction activities will be temporary and short term.

The Project will add two new offloading pumps, which will operate only when a rail car containing RD arrives. As the additional rail cars will be added to existing trips, no incremental noise from train trips is expected. Two additional pumps will be added to the truck loading area which will be used when material is transferred from the tanks to the truck rack. In addition, the Project will increase truck trips by approximately 23 trips per day. The incremental increase in noise levels are projected to be below the 45 dB(A) hourly equivalent noise limit established by the City of Stockton Municipal Code for residential areas and the 70 dB(A) hourly noise limit for industrial property lines. Therefore, the District concludes that the Project will have a less than significant impact on noise.

b) Would the Project result in generation of excessive groundborne vibration or groundborne noise levels?

Less than Significant Impact.

Groundborne vibration may be perceptible due to the movement of loaded trucks during construction. Other equipment used in the construction of the project would not be expected to generate vibration at levels that are perceptible by receptors. During the operational phase, the Project would not involve the use of equipment that generates groundborne vibration. Therefore, the Project would not result in the generation of excessive groundborne vibration or groundborne noise during construction or operational phases. Therefore, the District concludes that the Project will have a less than significant impact on groundborne vibration or groundborne noise levels.

c) For a project located within the vicinity of a private airstrip or 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?

No Impact.



The Project site is not located within 2 miles of a private airstrip or an airport, and is not part of an airport land use plan. Therefore, the District concludes that the Project will have no impact on excessive noise levels.

XIV. POPULATION / HOUSING

XIV. POPULATION / HOUSING Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				X

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

No Impact.

The Project would be located at existing NuStar Terminal Facility at the Port of Stockton and the site is a developed industrial facility. The Project is a modification to the existing facility for receiving, storing, and loading-out renewable diesel and the nature of the project would not induce population growth or the development of new homes. Therefore, the District concludes that the Project will have no impact on population or housing.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact.

The Project is located at the existing NuStar terminal facility at the Port of Stockton and will occur within its existing footprint of the industrial zoned area. There is no expansion associated with this that would displace existing people or housing. Also, the project site is surrounded by industrial/commercial facilities. Therefore the District concludes that the Project will have no impact on displacement of people or housing.



XV. PUBLIC SERVICES

XV. PUBLIC SERVICES Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental 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 public services:				
Fire protection?				X
Police protection?				X
Schools?				X
Parks?				X
Other public facilities?				X

a) *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental 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 public services:*

No Impact.

The Project would be located at existing NuStar Terminal Facility at the Port of Stockton. The Project will not have any construction besides the installation of 8” piping and rail off-loading equipment. The Project would not increase population in the surrounding areas and the proposed Project would not result in the need for additional public facilities or services, including fire protection, police, schools, or parks, beyond those currently available in the project area. Therefore, the District concludes that the Project will have no impact to Public Services.



XVI. RECREATION

XVI. RECREATION Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) 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?				X
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X

a) 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?

No Impact.

The Project would be located at existing NuStar Terminal Facility at the Port of Stockton. There are limited park resources within the immediate Project area, likely due to the industrial zoning. Construction and operation of the Project will be expected to primarily draw from the greater regional employment pool and as such, would not be expected to increase population of the surrounding area and therefore, no increase to the use of recreational facilities. Therefore, the District concludes that the Project will have no impact on the use of existing neighborhood and regional parks or other recreational facilities.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

No Impact.

The Project does not include construction or expansion of any recreational facilities and would not result in increased demand or other effects to recreational facilities. Therefore, the District concludes that the Project will have no impact on recreational facilities.



XVII. TRANSPORTATION

XVII. TRANSPORTATION Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?			X	
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?			X	
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X
d) Result in inadequate emergency access?			X	

Environmental Setting

Interstate Highways 5 and 580, as well as State Routes 4 and 99 (SR 4 and SR 99) provide regional and inter-regional access to the Port. SR 4, an east-to-west roadway with two travel lanes in each direction, provides access to the Project site. SR 4 comes to a T-intersection with Navy Drive, which then intersects with Washington Street to the north. Table 5 summarizes the approximate daily number of vehicles along Navy Drive and Washington Street, and Washington Street and Fresno Avenue (City 2014).

Table 5: Existing Roadway Operations

Intersection	24-Hour Traffic Volume in both Directions
Navy Drive and Washington Street	4,900
Washington Street and Fresno Avenue	7,900

Source: City 2014.

The Project site connects to SR 4 through Navy Drive. Navy Drive is an east-to-west roadway with two lanes in each direction west of the SR 4 intersection, and one lane in each direction east of the SR 4 intersection. The Project site sits between three main road segments consisting of SR 4 eastbound ramp, Navy Drive, and Washington Street. Navy Drive comes to a T-intersection with Washington Street. Table 6 summarizes the traffic volume at the intersection of SR 4 with Navy Drive and Stockton Street (Caltrans 2017).



Table 6: Existing Traffic Volumes on SR 4 at Navy Drive/Stockton Street

Traffic Direction	Peak Hour Traffic Volume	Annual Average Daily Traffic
Westbound at Navy Drive/Stockton Street	2,450	20,100
Eastbound at Navy Drive/Stockton Street	2,600	21,200

Source: Caltrans 2017 Traffic Volumes.

Because the Project area is within the jurisdiction of the City, the Project is subject to LOS standards used by the City. The City of Stockton General Plan has an LOS “D” standard for its roadway system (City 2003).

The closest City of Stockton Transit Authority bus stop near the Project site is approximately 1.6 miles east on South Los Angeles Avenue. No other public transportation serves the Project site.

In addition, there are no local bikeways near or on Navy Drive and Washington Street. Finally, there is infrastructure for pedestrians along Navy Drive and Washington Street for safe walkability.

Regulatory Setting

Transportation through and within the region is provided by a network of facilities overseen by multiple agencies. The U.S. Department of Transportation is responsible for the nation’s interstate freeway system, airports, rail lines, and ports. Caltrans manages the highways and freeways, as well as other transportation facilities across the state. Regionally, the San Joaquin Council of Governments (SJCOG) is responsible for developing and updating a variety of transportation plans. The Stockton Public Works and Community Development departments are responsible for the planning, design, construction, and maintenance of citywide transportation systems including roadways, bicycle, pedestrian and transit facilities.

SJCOG Regional Congestion Management Program

The SJCOG Regional Congestion Management Program identifies roadways with regional significance throughout the county and identifies coordination of the land use, air quality, and transportation planning processes. Regional Congestion Management Program roadways in Stockton include all Caltrans facilities and major arterial facilities, including Navy Drive, which extends into the Port. Regional Level of Service (LOS) standards are identified for each facility and a monitoring program is required to identify deficient roadways.



Traffic analyses in California are overseen by Caltrans and local jurisdictions. Caltrans has developed a Guide for the Preparation of Traffic Impact Studies (Caltrans 2002) to provide a summary of goals and policies. The SJCOG has developed a Regional Transportation Plan (RTP), which guides the region's transportation development over a 20-year period and covers all modes of transportation.

The RTP is updated every 3 years to reflect changes in available funding, economic activity, and population; and to incorporate findings from corridor studies and major infrastructure investments. The projects included in the RTP are also assessed for their effect on air quality, as the RTP is used in the State Implementation Plan to ensure states are meeting federal conformity standards. A project's effect on regional conformity goals has been accounted for if it is included in the RTP. The current 2014 RTP was adopted by the SJCOG Board and includes Strategy #17: Promote Safe and Efficient Strategies to Improve the Movement of Goods by Water, Air, Rail, and Truck.

City of Stockton

The City is responsible for coordination with RTPs. The proposed Project would be required to adhere to the City's transportation policies. The City requires traffic impact analyses for projects generating 100 or more vehicle trips during the a.m. or p.m. peak hours. The City of Stockton 2040 General Plan guides the maintenance, design, and operation of transportation, including streets and highways, within the Project area (City 2018a). The fundamental shift is from emphasizing growth in "outfill" areas at the periphery of the city to focusing new construction and redevelopment in existing "infill" neighborhoods. This change is reflected in the land use map and the associated map depicting the transportation network required to serve future development, and in the goals, policies, and actions throughout the General Plan. The following goals and policies are provided in the Transportation and Circulation Element:

- Goal TR-1: Mobile Community – Provide an integrated transportation system that enables safe and efficient movement of people and goods for all modes of travel.
- Goal TR-2: Active Community – Offer active transportation opportunities for the entire community.
- Goal TR-3: Sustainable Transportation – Design Transportation infrastructure to help reduce pollution and vehicle travel. (TC-2.17, TC-3)
- Policy TR-4.1: Utilize LOS information to aid understanding of potential major increases to vehicle delay at key signalized intersections.
- Policy TR-4.2: Replace LOS with (1) vehicle-miles traveled (VMT) per capita and (2) impacts to non-automobile travel modes, as the metrics to analyze impacts related to land use proposals under CEQA in accordance with SB 743.

a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Less than Significant Impact.



The roadways in the Project site vicinity are already designed for product distribution trucks, and Project-related traffic would remain in the industrial zone or along expressways connected with the regional roadway network. There are no public transit facilities within the Port. Bike and pedestrian facilities are extremely limited within the Port. Most roads are private and do not include sidewalks. The only pedestrian walkways are along Navy Drive and Washington Street, and no bike paths service the Project site. Pedestrian walkways would not be affected.

Over 200 trucking companies currently service the Port. On-road truck transportation from NuStar would be for customers, fueling stations, and other recipients within an approximate 66-mile radius of the NuStar facility. On-road truck transportation from NuStar would increase by approximately 23 trips per day (from approximately 16,651 trips/year to 24,901 trips/year, a net increase of approximately 8,250 throughput per year).

In addition, the City of Stockton is responsible for coordination with RTPs. The Project would be required to adhere to the City's transportation policies. When compared to the overall transportation system within the Port of Stockton impacts and transportation plans or policies, the District concludes that the Project will have a less than significant impact.

b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)

Less than Significant Impact.

Section 15064.3 focuses on using vehicle miles traveled (VMT) as a measure for transportation impacts. While public agencies may immediately apply Section 15064.3 of the updated Guidelines, statewide application is not required until July 1, 2020. In addition, uniform statewide guidance for projects is still under development.

Nevertheless, the Project would result in RD being brought in by rail and an increase of 23 trucks delivering RD to customers. It is anticipated that the furthest distance for customer delivery would be 66 miles from the NuStar facility. Again, the roadways in the Project site vicinity are already designed for product distribution trucks, and Project-related traffic would remain in the industrial zone or along expressways connected with the regional roadway network for delivery to customers.

The SJCOG Regional Congestion Management Program surveys all the major arterial and roadways of significance to the county. Based on the Stockton 2040 General Plan Update (City 2016), Navy Drive has been given an "A" LOS, based on the "free-flow operations where vehicles are relatively unimpeded in their ability to maneuver within the traffic stream. Effects of incidents are easily absorbed." As stated above in response to question (a), the proposed Project would have an



estimated net increase of 8,250 annual truck throughput, which is roughly an increase of 23 truck trips per day. Based on the analysis from the 2016 Stockton 2040 General Plan Update, Navy Drive currently supports approximately 3,780 to 4,850 average daily trips. An increase of 23 truck trips per day would be less than a 1 percent increase in traffic. This would not conflict or be inconsistent with the CEQA Guidelines section 15064.3 (b). Therefore, the District concludes that the Project will have a less than significant impact according to CEQA Guidelines section 15064.3, subdivision (b).

c) *Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

No Impact.

The Port is a heavily industrialized area designed to accommodate product distribution trucks. The proposed Project would not be changing or adding any roadway features or new uses. Therefore, the District concludes that the Project will have no impact on roadway design.

d) *Result in inadequate emergency access?*

Less than Significant Impact.

There could be minor disruptions to the roadways within the Port during the construction phase of 6 months, but these would not affect the main roads within the Port. Construction crews would follow common BMPs, allowing for emergency access during work activity and training for all on-site personnel regarding emergency access routes. During operation of the project, RD would be transferred from the rail offload area to tanks, all within NuStar's terminal property, and then delivered to customers via truck.

Trucks transporting RD would be consistent with existing operations occurring on Washington Street, Navy Drive, and surrounding regional roadways, which are designed to handle large trucks. Therefore, the District concludes that the Project will have a less than significant impact on emergency access.



XVIII. TRIBAL CULTURAL RESOURCES.

XVIII. TRIBAL CULTURAL RESOURCES Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1 (K), or				X
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision © of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.				X

a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1 (K)

No Impact.

The Project would be located at existing NuStar Terminal Facility at the Port of Stockton. The Project location is a long established industrial site and is not listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1 (K). Therefore, the District concludes that the Project will have no impact on historical resources.

b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision © of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resources to a California Native American tribe.



No Impact.

As prescribed within Assembly Bill (AB) 52, the District contacted all tribes located within the District’s jurisdiction to notify the District to be added to the District Tribal Consult list.

The District did not receive a request from any tribes in the County of San Joaquin to be added to the list, nor did any tribe indicate verbally or in writing that the site held any significance of resources. Additionally, as stated above, the site is not listed or eligible for listing in the California Register of Historical Resources. Therefore, the District concludes that the Project will have no impact on significant resources to a California Native American Tribe.

XIX. UTILITIES / SERVICE SYSTEMS

XIX. UTILITIES / SERVICE SYSTEMS Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?				X
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?				X
c) Result 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?				X
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?				X
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?				X



- a) *Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?***

No Impact.

The Project would require new connections to existing utilities for operation of new pumps, and the new truck loading arms. None of these utility connections or minor improvements would require the construction or expansion of existing utility facilities. Therefore, the District concludes that the Project will have no impact on the construction of new or expanded utility services.

- b) *Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?***

No Impact.

Project construction and operations are not anticipated to generate significant water demand. The proposed Project would have no impact pertaining to water supply entitlements. Therefore, the District concludes that the Project will have no impact on sufficiency of water supplies.

- c) *Result 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?***

No Impact.

Storm water from the NuStar facility with visible impacts would continue to be removed by a certified waste hauler, and the proposed operational changes would not be anticipated to generate additional impacts as the facility would continue to operate under its existing SPCC Plan. Therefore, the District concludes that the Project will have no impact on the capacity of wastewater treatment providers.

- d) *Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?***

No Impact.

The Project would require a minimal amount of excavation and no disposal of existing surface materials for grading and surface preparation. The amount of solid



waste generated by the Project would be negligible and limited to nonhazardous waste generated by personnel on site and through facility maintenance. The landfills in the area have adequate capacity to meet the region’s need and are authorized to accept waste materials that may be generated during Project construction. Therefore, the District concludes that the Project will have no impact on State or local solid waste reduction goals.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

No Impact.

The Project would be constructed within the parameters of applicable federal, state, and local solid waste regulations. As described above, area landfills are authorized to accept the types of waste potentially generated by Project construction and operation. Therefore, the District concludes that the Project will have no impact on federal, state, or local solid waste management reduction regulations.

XX. WILDFIRE

XX. WILDFIRE Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?				X
b) Exacerbate wildfire risks, due to slope, prevailing winds, and other factors, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?				X
e) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?				X
f) Expose people or structures to significant risks, including downslope or downstream flooding of landslides, as a result of runoff, post-fire slope instability, or drainage changes?				X



a) *Substantially impair an adopted emergency response plan or emergency evacuation plan?*

No Impact.

The Project would not change or physically interfere with an adopted emergency response plan or emergency evacuation plan. Therefore, the District concludes that the Project will have no impact on emergency response plan or emergency evacuation plan.

b) *Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?*

No Impact.

The Project site is located in an industrialized area that is generally flat and contains very limited vegetation. Therefore, the District concludes that the Project will have no impact that would exacerbate wildfire risks.

c) *Required the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?*

No Impact.

The Project would be located at the existing NuStar Terminal Facility at the Port of Stockton and does not require the installation or maintenance of associated infrastructure. Therefore, the District concludes that the Project will have no impact on infrastructure that would exacerbate fire risk or result in impacts to the environment.

d) *Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?*

No Impact.

As mentioned above, the Project is located in an industrialized area that is generally flat. There is no risk of downstream landslides. The Project area is protected by a levee system. Levee failure has a relatively small probability of occurrence. The Project would not alter these conditions. Therefore, the District



concludes that the Project will have no impact exposing people or structures to significant risks as a result of runoff, post-fire slope instability, or drainage changes.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE

XXI. MANDATORY FINDINGS OF SIGNIFICANCE Would the Project	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) 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, substantially 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?			X	
b) 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)?			X	
c) Have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?			X	

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, substantially 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?

Less than Significant Impact.

The Project would be located at the existing NuStar Terminal Facility at the Port of Stockton. The proposed changes are consistent with the current use of the facility and, the operational changes represent a minor incremental increase in rail and truck traffic to and from the terminal. The Project would not substantially affect habitat or biological receptors; no rare or endangered species are known to be present at the Project site. The Project would not substantially affect historical resources as there



are no known historical resources associated with the Project, and the nature of the Project location, which are not likely to contain historical resources. No known historical resources are present at the Project site. Therefore, the District concludes that the Project will have a cumulatively less than significant impact on the habitat of a fish, wildlife, or endangered plant or animal or examples 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)?***

Less than Significant Impact.

Per CEQA Guidelines §15064(h)(3) a Lead Agency may determine that a project’s incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program, including, but not limited to an air quality attainment or maintenance plan that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area in which the project is located.

By its very nature, air pollution has a cumulative impact. The District’s nonattainment status is a result of past and present development with the San Joaquin Valley Air Basin (SJVAB). Furthermore, attainment of ambient air quality standards can be jeopardized by increasing emissions-generating activities in the region. No single project would be sufficient in size, by itself, to result in nonattainment of the regional air quality standards. Instead, a project’s emissions may be individually limited, but cumulatively considerable when taken in combination with past, present, and future development within the San Joaquin Valley Air Basin.

In addition, with the Project being located at the existing NuStar Terminal Facility at the Port of Stockton, the Port of Stockton, acting as a Lead Agency, recently approved a Final EIR for the NuStar Docks 10/11 Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS) project on April 6, 2020. The MOTEMS project included upgrading Docks 10/11 to meet state MOTEMS in order to receive RD by ship as well as the installation of approximately 3,400 feet of underground piping from the dock to the existing NuStar terminal to transport the RD diesel arriving by ship to the existing NuStar facility. Additional pumps, truck rack improvements, and piping at the existing facility were included in the Final EIR.

The Final EIR for this MOTEMS project referenced 22 past, present, and potential future projects including this Project. This Negative Declaration notes that this Project was included in the cumulative section of the Final EIR for the NuStar MOTEMS project. The Final EIR concluded that the MOTEMS project in addition to



those 22 projects would result in significant cumulative impacts. The District reviewed the Final EIR and relied on this determination of significant cumulative impacts.

In addition, as discussed above in the Air Quality Section III, the Project's emissions are less than thresholds of significance and would not conflict with an air quality attainment plan. The environmental effects assessed in this Initial Study were determined to have either a no impact or less than significant impact. Therefore, the Project will have a cumulatively less than significant impact on the net increase of any criteria pollutant for which the District is in non-attainment under applicable Federal or State ambient air quality standards and will have a less than significant impact.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less than Significant Impact.

The Project would be located at the existing NuStar Terminal Facility at the Port of Stockton. The analyses contained in this Initial Study indicated that the Project is not expected to have a substantial impact on human beings, either directly or indirectly. Therefore, the District concludes that the Project will have a less than significant impact on environmental effects that cause adverse effects on human being.



H. REFERENCES:

California Department of Toxic Substances Control (DTSC). 2019. Envirostor database. Accessed 7/24/19 and May, 2020 at: <https://www.envirostor.dtsc.ca.gov/public/>

California Air Pollution Control Officers Association (CAPCOA) 2016. CalEEMod: California Emission Estimator Model. <http://www.caleemod.com>.

California Air Resources Board (CARB), 2016. Low Carbon Fuel Standard Program Background. <https://ww3.arb.ca.gov/fuels/lcfs/lcfs-background.htm>, accessed December 13, 2019 and 05/18/2020.

Caltrans. 2017. Traffic Volumes. Online: <http://www.dot.ca.gov/trafficops/census/volumes2017/Route2-4.html>. Accessed: June 6, 2019, and May 2020

https://geotracker.waterboards.ca.gov/esi/uploads/geo_report/8857134342/SL0607733381.PDF Accessed June 11, 2019 and May 2020.

City, 2016. 2040 General Plan, Existing Conditions Technical Memorandum: Transportation. Online:

City, 2018a. Envision Stockton 2040 General Plan. Public Review Draft. June 2018. Available at: http://www.stocktongov.com/files/EnvisionStockton2040GP_Draft.pdf. Accessed 05/18/2020.

San Joaquin Valley Unified Air Pollution Control District, *Authority to Construct: Application Review* Applicant No. N-7144, Project No. N-1163206 May 2020

American Census Bureau, 2017. Employment Status 2013-2017 American Community Survey 5-Year Estimates. Accessed July 18, 2019. Available at: <https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>.

Arcadis U.S., Inc. 2019. *Semiannual Groundwater Monitoring Report for the First Quarter of 2019 – SFPP, L.P. Stockton Terminal, 2947 Navy Drive, Stockton, California*. May. Accessed online 7/24/19 at: https://geotracker.waterboards.ca.gov/esi/uploads/geo_report/6092779994/SL373513623.PDF

Cal Fire (California Department of Forestry and Fire Protection), 2019. Is Your Home In a Fire Hazard Severity Zone? Accessed September 16, 2019 and 05/18/2020. Available at: <https://www.arcgis.com/home/item.html?id=5e96315793d445419b6c96f89ce5d153>



California Department of Conservation, CGS. 2018. Accessed on 7/16/19 and May 2020 at: https://spatialservices.conservation.ca.gov/arcgis/rest/services/CGS_Earthquake_Hazard_Zones

California Department of Conservation, CGS. 2019. Fault Maps Accessed 7/16/19 and May 2020 at <https://maps.conservation.ca.gov/cgs/DataViewer/>

CalRecycle (California Department of Resources Recycling and Recovery), 2019. Solid Waste Information System Database. Accessed July 30, 2019. Available at: <https://www2.calrecycle.ca.gov/SWFacilities/Directory/>.

California Department of Transportation (Caltrans), 2002. Guide for the Preparation of Traffic Impact Studies. Online: http://www.dot.ca.gov/hq/tpp/offices/ocp/igr_ceqa_files/tisguide.pdf. Accessed June 6, 2019.

Caltrans. 2017. Traffic Volumes. Online: <http://www.dot.ca.gov/trafficops/census/volumes2017/Route2-4.html>. Accessed: June 6, 2019 and 05/18/2020.

City of Stockton (City). 2003. Transportation Impact Analysis Guidelines. Online: <http://www.stocktongov.com/files/Appendix%20-%20Transportation%20Impact%20Analysis%20Guidelines.pdf>. Accessed: June 7, 2019 and 05/18/2020.

City, 2014. City of Stockton Department of Public Works 2014 Traffic Volume Flow Map. Online: http://www.stocktongov.com/files/2014_Traffic_Volume_Flow_Map_-_Update_Nov_2015.pdf. Accessed June 11, 2019 and 05/18/2020.

City, 2019a. City of Stockton Municipal Code. Title 16 Development Code, Division 3, Chapter 16.60 Noise Standards. Available at: <https://qcode.us/codes/stockton/> Accessed on July 3, 2019 and May 2020.

City, 2019c. City of Stockton Municipal Utility Services – Water. Last modified July 15, 2019; accessed July 29, 2019 and May 2020. Available at: <http://www.stocktongov.com/government/departments/municipalUtilities/utilWater.html>.

Coffman Associates, Inc. 2018. *Airport Land Use Compatibility Plan Update for Stockton Metropolitan Airport*. February. Accessed online 7/25/19 and May 2020 at: <https://www.sjocog.org/DocumentCenter/View/1318/2016-Stockton-Metropolitan-Airport-ALUCP---Amended-February-2018?bidId=>



DEFRA. July 2006. Update of noise database for prediction of noise on construction and open sites. Available at: https://www.google.com/search?q=defra+construction+noise+database&rlz=1C1GGRV_enUS751US751&oq=defra+construction+noise+&aqs=chrome.1.69i57j0.3919j1j7&sourceid=chrome&ie=UTF-8# Accessed on July 24, 2019 and May 2020.

Federal Highway Administration, Roadway Construction Noise Model User Guide. Available at: https://www.fhwa.dot.gov/Environment/noise/construction_noise/rcnm/rcnm01.cfm Accessed on July 24, 2019 and 05/18/2020.

Federal Transit Administration. September 2018. Transit Noise and Vibration Impact Assessment. Available at: <https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/noise-and-vibration> Accessed on July 24, 2019 and 05/18/2020.

Lettis, W.R. (1982). *Late Cenozoic Stratigraphy and Structure of the Western Margin of the Central San Joaquin Valley, California*. USGS Open-File Report 82-526.

Marchand, D.E., Allwardt, A. 1981. *Geological Survey Bulletin 1470: Late Cenozoic Stratigraphic Units, Northeastern San Joaquin Valley, California*. United States Department of the Interior and Geological Survey. Accessed on 7/16/2019 and 05/18/2020 at: <https://pubs.usgs.gov/bul/1470/report.pdf>

Port (Port of Stockton), 2004. Port of Stockton West Complex Development Plan Final Environmental Impact Report. May 2004.

Port, 2009. Storm Water Development Standards Plan. June. Accessed online 7/29/19 and 05/18/2020 at: https://www.sigov.org/uploadedfiles/sic/departments/supportserv/open_bids/bids/exhibit%20d%20to%20addendum%201_port%20development%20standards%20plan.pdf

Port, 2016. Port of Stockton California Electric Power Supply. Accessed on July 29, 2019 and 05/18/2020 at <https://www.portofstockton.com/wp-content/uploads/2018/05/2016-Power-Content-Label.pdf>.

Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS) Development and Vessel Service Project Draft Environmental Impact Report, December 2019. State Clearinghouse Number:2019060229.

Port, 2019b. Press Release March 11, 2019. Online: <https://www.portofstockton.com/port-of-stockton-reports-best-year-on-record>. Accessed June 7, 2019 and May 2020.



Promotum, 2015. *California's Low Carbon Fuel Standard: Evaluation of the Potential to Meet and Exceed the Standards*. February 2, 2015. Access on 7/25/19 at: <https://www.ucsusa.org/sites/default/files/attach/2015/02/California-LCFS-Study.pdf>

Regional Water Quality Control Board. 2018. The Water Quality Control Plan (Basin Plan) for the California Regional Water Quality Control Board Central Valley Region. Fifth edition – The Sacramento River Basin and the San Joaquin River Basin. May. Accessed online 7/26/19 at: https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr_201805.pdf

San Joaquin County (SJC) (Calif.), 1992. III. A *Seismic and Geological Hazards*, Public Health and Safety, July 1992. Accessed on 07/16/2019 and 05/18/2020 at: https://www.sjgov.org/commdev/cgi-bin/cdyn.exe/handouts-planning_GP-V3-III-A?grp=handouts-planning&obj=GP-V3-III-A

San Joaquin County 2017. General Plan 2035. Accessed on 7/19/2019 and 05/18/2020 at: https://www.sjgov.org/commdev/cgi-bin/cdyn.exe/file/Planning/General%20Plan%202035/Part%203.1d_Economic%20Development_2017-03-13.pdf

San Joaquin County. 2019. Flood Zone Viewer, and online interactive map accessed 7/26/19 and 05/18/2020 at: <http://www.sjmap.org/floodzoneviewer/Viewer.asp>

SJCOES (San Joaquin County Office of Emergency Services), 2003. Dam Failure Plan. December 2003.
San Joaquin County Office of Emergency Services (SJCOES) 2019. Emergency Operations Plan. January. Accessed online 7/25/19 and 05/18/2020 at: <https://www.sjgov.org/uploadedfiles/sjc/departments/oes/content/meetings-committees/documents/2019/5-2%20san%20joaquin%20emergency%20operations%20plan.pdf>

San Joaquin Valley Air Pollution Control District (SJVAPCD), 2009. Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA. December 17, 2009. Available at: <https://www.valleyair.org/Programs/CCAP/12-17-09/3%20CCAP%20-%20FINAL%20LU%20Guidance%20-%20Dec%2017%202009.pdf>.

SJVAPCD, 2015. Guidance for Assessing and Mitigating Air Quality Impacts. March 19, 2015. Available at: http://www.valleyair.org/transportation/GAMAQI_3-19-15.pdf

SJVAPCD, 2016. 2016 Ozone Plan for the 2008 8-Hour Ozone Standard, Adopted June 16, 2016.



SJVAPCD, 2019. Draft Authority to Construct Permit Application for the Stockton RD Project.

Smith, J.D., and J.P. Clinkenbeard, 2012. Update of mineral land classification for Portland cement concrete-grade aggregate in the Stockton-Lodi production-consumption region, San Joaquin and Stanislaus Counties, California. California Geological Survey Special Report 199. Plate 1. Available at: ftp://ftp.consrv.ca.gov/pub/dmg/pubs/sr/SR_199/. Smith, Ray (NuStar Facility Terminal Manager), 2019. Site visit with Nicolas Duffort (Anchor QEA). August 6, 2019.

State of California 2008. Energy Action Plan 2008 Update. Accessed on 7/19/2019 and 05/18/2020 at: <https://ww2.energy.ca.gov/2008publications/CEC-100-2008-001/CEC-100-2008-001.PDF>

Stockton Port District, 2006. Stormwater Development Standards Plan. April 17, 2006.

Stockton Port District, 2012. Targa Stockton Terminal Project Tiered Initial Study and Proposed Mitigated Negative Declaration. February 2012.

Stockton Port District, 2013. Endicott Biofuel Production Facility Project Initial Study and Proposed Mitigated Negative Declaration. November 2013.

Stockton Port District, 2015. Navy Drive Widening Initial Study/Mitigated Negative Declaration. June 2015.

Technical Response Planning, 2018. Stockton Terminal FRP - EPA CA 2941, 3015 & 3505 Navy Drive Stockton, CA 95206. Revised October 31, 2018.

United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS). 2018a. Web Soil Survey website. Accessed on 8/29/18 and 05/18 2020 at: <https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>

U.S. Department of Energy (USDOE) 2018 Energy Efficiency & Renewable Energy, Renewables Portfolio Standard 2018. Accessed on 7/19/2019 and 05/2020 at: <https://programs.dsireusa.org/system/program/detail/840>

USDOE, 2019. 2009 American Recovery and Reinvestment Act Overview. Accessed on 7/19/2019 and May 19, 2020 at: <https://www.energy.gov/oe/information-center/recovery-act>

United States Environmental Protection Agency (USEPA). December 2018. Summary of the Energy Policy Act. Accessed on 7/19/2019 and 05/19/2020 at: <https://www.epa.gov/laws-regulations/summary-energy-policy-act>



United States Geological Survey (USGS). 2008. "Forecasting California's Earthquakes – What Can We Expect in the Next 30 Years?" USGS Fact Sheet 2008-3027. Accessed online 7/8/19 and 05/20/2020 at: <https://pubs.usgs.gov/fs/2008/3027/>
Wagner, D.L., E.J. Bortugno, and R.D. McJunkin (1991). *Geologic Map of the San Francisco San Jose Quadrangle*. California Geologic Map No. 5a.



I. APPENDICES

Appendix A. Acronyms and Abbreviations

Appendix B. CalEEMod Construction Emission Results for Project Construction

Appendix C. RD Rail and Truck Operational Emissions

Appendix D. Biological Resources



Appendix A

Acronyms and Abbreviations



Appendix A. Acronyms and Abbreviations

AAQA	Ambient Air Quality Analysis
AAQS	Ambient Air Quality Standards
AB 2588	Assembly Bill 2588 – Air Toxics “Hot Spots” Information and Assessment Act
AB 32	Assembly Bill 32 – California Global Warming Solutions Act of 2006
ATC	Authority to Construct
BACT	Best Available Control Technology
BAU	Business as Usual
BMP	Best Management Practice
BPS	Best Performance Standards
CalEEMod	California Emissions Estimator Model
CARB	California Air Resources Board
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CH ₄	Methane
CMP	Conservation Management Practices Plan
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
CO ₂ e	Carbon Dioxide equivalent
COG	Council of Governments
DEIR	Draft Environmental Impact Report
District	San Joaquin Valley Unified Air Pollution Control District
DPM	Diesel Particulate Matter
EIR	Environmental Impact Report
ERG	Environmental Review Guidelines
FED	Functionally Equivalent Document
FEIR	Final Environmental Impact Report
GAMAQI	Guide for Assessing and Mitigating Air Quality Impacts
GHG	Greenhouse Gas
HAP	Hazardous Air Pollutant
HRA	Health Risk Assessment
LCFS	Low Carbon Fuel Standard
N ₂ O	Nitrous Oxide
NOP	Notice of Preparation
NO _x	Oxides of Nitrogen
NSR	New Source Review
NuStar	NuStar Terminals Operations Partnership, LP
PM ₁₀	Particulate Matter 10 microns in diameter
PM _{2.5}	Particulate Matter 2.5 microns in diameter
ROG	Reactive Organic Gases
SEIR	Supplemental Environmental Impact Report
SJVAB	San Joaquin Valley Air Basin



SJVAPCD	San Joaquin Valley Air Pollution Control District
SO ₂	Sulfur Dioxide
SO _x	Sulfur Oxides
SPCC	Spill Prevention, Control, and Countermeasure
SWPPP	Storm Water Pollution Prevention Plan
TAC	Toxic Air Contaminant
TPY	Tons Per Year
US EPA	US Environmental Protection Agency
VOC	Volatile Organic Compound



Appendix B

CalEEMod Construction Emission Results for Project Construction

Stockton NuStar Related Project - San Joaquin Valley Unified APCD Air District, Annual

Stockton NuStar Related Project
San Joaquin Valley Unified APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Heavy Industry	155.00	1000sqft	3.56	155,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.7	Precipitation Freq (Days)	45
Climate Zone	2			Operational Year	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Provided by NuStar.

Off-road Equipment - Provided by NuStar

Off-road Equipment - Provided by NuStar

Off-road Equipment - Provided by NuStar

Trips and VMT - Concrete truck.

Stockton NuStar Related Project - San Joaquin Valley Unified APCD Air District, Annual

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	230.00	66.00
tblConstructionPhase	NumDays	230.00	44.00
tblConstructionPhase	NumDays	8.00	26.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	6.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblTripsAndVMT	VendorTripNumber	25.00	1.00
tblTripsAndVMT	VendorTripNumber	25.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	10.00

2.0 Emissions Summary

Stockton NuStar Related Project - San Joaquin Valley Unified APCD Air District, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	4-1-2020	6-30-2020	1.1134	1.1134
2	7-1-2020	9-30-2020	1.0196	1.0196
		Highest	1.1134	1.1134

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.7133	1.0000e-005	1.4300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.7700e-003	2.7700e-003	1.0000e-005	0.0000	2.9500e-003
Energy	0.0156	0.1416	0.1190	8.5000e-004		0.0108	0.0108		0.0108	0.0108	0.0000	535.2000	535.2000	0.0202	6.3900e-003	537.6092
Mobile	0.0879	0.9496	0.9158	4.3200e-003	0.2589	3.9700e-003	0.2628	0.0696	3.7500e-003	0.0734	0.0000	400.7036	400.7036	0.0265	0.0000	401.3650
Waste						0.0000	0.0000		0.0000	0.0000	39.0149	0.0000	39.0149	2.3057	0.0000	96.6577
Water						0.0000	0.0000		0.0000	0.0000	11.3716	56.4224	67.7940	1.1705	0.0281	105.4326
Total	0.8167	1.0912	1.0362	5.1700e-003	0.2589	0.0147	0.2736	0.0696	0.0145	0.0842	50.3864	992.3288	1,042.7153	3.5229	0.0345	1,141.0675

Stockton NuStar Related Project - San Joaquin Valley Unified APCD Air District, Annual

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.7133	1.0000e-005	1.4300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.7700e-003	2.7700e-003	1.0000e-005	0.0000	2.9500e-003
Energy	0.0156	0.1416	0.1190	8.5000e-004		0.0108	0.0108		0.0108	0.0108	0.0000	535.2000	535.2000	0.0202	6.3900e-003	537.6092
Mobile	0.0879	0.9496	0.9158	4.3200e-003	0.2589	3.9700e-003	0.2628	0.0696	3.7500e-003	0.0734	0.0000	400.7036	400.7036	0.0265	0.0000	401.3650
Waste						0.0000	0.0000		0.0000	0.0000	39.0149	0.0000	39.0149	2.3057	0.0000	96.6577
Water						0.0000	0.0000		0.0000	0.0000	11.3716	56.4224	67.7940	1.1705	0.0281	105.4326
Total	0.8167	1.0912	1.0362	5.1700e-003	0.2589	0.0147	0.2736	0.0696	0.0145	0.0842	50.3864	992.3288	1,042.7153	3.5229	0.0345	1,141.0675

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	4/1/2020	4/30/2020	6	26	Civil
2	Building Construction1	Building Construction	5/1/2020	7/31/2020	6	66	Mechanical
3	Building Construction2	Building Construction	7/1/2020	8/31/2020	6	44	Electrical

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Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 13

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Stockton NuStar Related Project - San Joaquin Valley Unified APCD Air District, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	1	6.00	158	0.38
Grading	Skid Steer Loaders	2	6.00	65	0.37
Grading	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction1	Aerial Lifts	2	8.00	63	0.31
Building Construction1	Air Compressors	1	8.00	78	0.48
Building Construction1	Cranes	1	4.00	231	0.29
Building Construction1	Excavators	1	6.00	158	0.38
Building Construction1	Forklifts	2	6.00	89	0.20
Building Construction1	Skid Steer Loaders	2	6.00	65	0.37
Building Construction1	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction1	Welders	6	8.00	46	0.45
Building Construction2	Aerial Lifts	2	8.00	63	0.31
Building Construction2	Generator Sets	1	8.00	84	0.74
Building Construction2	Cranes	1	7.00	231	0.29
Building Construction2	Forklifts	3	8.00	89	0.20
Building Construction1	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction2	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction2	Welders	1	8.00	46	0.45

Trips and VMT

Stockton NuStar Related Project - San Joaquin Valley Unified APCD Air District, Annual

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	6	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction1	17	65.00	1.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction2	11	65.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0852	0.0000	0.0852	0.0438	0.0000	0.0438	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0262	0.2943	0.1585	3.2000e-004		0.0132	0.0132		0.0121	0.0121	0.0000	27.9619	27.9619	9.0400e-003	0.0000	28.1880
Total	0.0262	0.2943	0.1585	3.2000e-004	0.0852	0.0132	0.0984	0.0438	0.0121	0.0559	0.0000	27.9619	27.9619	9.0400e-003	0.0000	28.1880

Stockton NuStar Related Project - San Joaquin Valley Unified APCD Air District, Annual

3.2 Grading - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.5000e-004	3.7000e-004	3.7900e-003	1.0000e-005	1.0400e-003	1.0000e-005	1.0500e-003	2.8000e-004	1.0000e-005	2.8000e-004	0.0000	0.9333	0.9333	3.0000e-005	0.0000	0.9340
Total	5.5000e-004	3.7000e-004	3.7900e-003	1.0000e-005	1.0400e-003	1.0000e-005	1.0500e-003	2.8000e-004	1.0000e-005	2.8000e-004	0.0000	0.9333	0.9333	3.0000e-005	0.0000	0.9340

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0852	0.0000	0.0852	0.0438	0.0000	0.0438	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0262	0.2943	0.1585	3.2000e-004		0.0132	0.0132		0.0121	0.0121	0.0000	27.9619	27.9619	9.0400e-003	0.0000	28.1880
Total	0.0262	0.2943	0.1585	3.2000e-004	0.0852	0.0132	0.0984	0.0438	0.0121	0.0559	0.0000	27.9619	27.9619	9.0400e-003	0.0000	28.1880

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3.2 Grading - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.5000e-004	3.7000e-004	3.7900e-003	1.0000e-005	1.0400e-003	1.0000e-005	1.0500e-003	2.8000e-004	1.0000e-005	2.8000e-004	0.0000	0.9333	0.9333	3.0000e-005	0.0000	0.9340
Total	5.5000e-004	3.7000e-004	3.7900e-003	1.0000e-005	1.0400e-003	1.0000e-005	1.0500e-003	2.8000e-004	1.0000e-005	2.8000e-004	0.0000	0.9333	0.9333	3.0000e-005	0.0000	0.9340

3.3 Building Construction1 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1484	1.0295	1.1065	1.7300e-003		0.0556	0.0556		0.0539	0.0539	0.0000	142.2876	142.2876	0.0289	0.0000	143.0104
Total	0.1484	1.0295	1.1065	1.7300e-003		0.0556	0.0556		0.0539	0.0539	0.0000	142.2876	142.2876	0.0289	0.0000	143.0104

Stockton NuStar Related Project - San Joaquin Valley Unified APCD Air District, Annual

3.3 Building Construction1 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.6000e-004	4.8100e-003	9.1000e-004	1.0000e-005	2.6000e-004	3.0000e-005	2.9000e-004	8.0000e-005	3.0000e-005	1.0000e-004	0.0000	1.0666	1.0666	8.0000e-005	0.0000	1.0687
Worker	0.0109	7.3700e-003	0.0749	2.0000e-004	0.0205	1.5000e-004	0.0207	5.4600e-003	1.3000e-004	5.5900e-003	0.0000	18.4329	18.4329	5.3000e-004	0.0000	18.4461
Total	0.0110	0.0122	0.0758	2.1000e-004	0.0208	1.8000e-004	0.0210	5.5400e-003	1.6000e-004	5.6900e-003	0.0000	19.4995	19.4995	6.1000e-004	0.0000	19.5148

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1484	1.0295	1.1065	1.7300e-003		0.0556	0.0556		0.0539	0.0539	0.0000	142.2874	142.2874	0.0289	0.0000	143.0102
Total	0.1484	1.0295	1.1065	1.7300e-003		0.0556	0.0556		0.0539	0.0539	0.0000	142.2874	142.2874	0.0289	0.0000	143.0102

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3.3 Building Construction1 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.6000e-004	4.8100e-003	9.1000e-004	1.0000e-005	2.6000e-004	3.0000e-005	2.9000e-004	8.0000e-005	3.0000e-005	1.0000e-004	0.0000	1.0666	1.0666	8.0000e-005	0.0000	1.0687
Worker	0.0109	7.3700e-003	0.0749	2.0000e-004	0.0205	1.5000e-004	0.0207	5.4600e-003	1.3000e-004	5.5900e-003	0.0000	18.4329	18.4329	5.3000e-004	0.0000	18.4461
Total	0.0110	0.0122	0.0758	2.1000e-004	0.0208	1.8000e-004	0.0210	5.5400e-003	1.6000e-004	5.6900e-003	0.0000	19.4995	19.4995	6.1000e-004	0.0000	19.5148

3.4 Building Construction2 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0583	0.5425	0.5045	8.0000e-004		0.0304	0.0304		0.0285	0.0285	0.0000	69.1955	69.1955	0.0175	0.0000	69.6331
Total	0.0583	0.5425	0.5045	8.0000e-004		0.0304	0.0304		0.0285	0.0285	0.0000	69.1955	69.1955	0.0175	0.0000	69.6331

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3.4 Building Construction2 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.2800e-003	4.9400e-003	0.0502	1.4000e-004	0.0138	1.0000e-004	0.0139	3.6600e-003	9.0000e-005	3.7500e-003	0.0000	12.3664	12.3664	3.5000e-004	0.0000	12.3752
Total	7.2800e-003	4.9400e-003	0.0502	1.4000e-004	0.0138	1.0000e-004	0.0139	3.6600e-003	9.0000e-005	3.7500e-003	0.0000	12.3664	12.3664	3.5000e-004	0.0000	12.3752

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0583	0.5425	0.5045	8.0000e-004		0.0304	0.0304		0.0285	0.0285	0.0000	69.1955	69.1955	0.0175	0.0000	69.6330
Total	0.0583	0.5425	0.5045	8.0000e-004		0.0304	0.0304		0.0285	0.0285	0.0000	69.1955	69.1955	0.0175	0.0000	69.6330

Stockton NuStar Related Project - San Joaquin Valley Unified APCD Air District, Annual

3.4 Building Construction2 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.2800e-003	4.9400e-003	0.0502	1.4000e-004	0.0138	1.0000e-004	0.0139	3.6600e-003	9.0000e-005	3.7500e-003	0.0000	12.3664	12.3664	3.5000e-004	0.0000	12.3752
Total	7.2800e-003	4.9400e-003	0.0502	1.4000e-004	0.0138	1.0000e-004	0.0139	3.6600e-003	9.0000e-005	3.7500e-003	0.0000	12.3664	12.3664	3.5000e-004	0.0000	12.3752

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0879	0.9496	0.9158	4.3200e-003	0.2589	3.9700e-003	0.2628	0.0696	3.7500e-003	0.0734	0.0000	400.7036	400.7036	0.0265	0.0000	401.3650
Unmitigated	0.0879	0.9496	0.9158	4.3200e-003	0.2589	3.9700e-003	0.2628	0.0696	3.7500e-003	0.0734	0.0000	400.7036	400.7036	0.0265	0.0000	401.3650

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Heavy Industry	232.50	232.50	232.50	678,786	678,786
Total	232.50	232.50	232.50	678,786	678,786

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Heavy Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Heavy Industry	0.506092	0.032602	0.169295	0.124521	0.019914	0.005374	0.021664	0.110051	0.001797	0.001623	0.005307	0.000969	0.000792

5.0 Energy Detail

Historical Energy Use: N

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5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	381.0213	381.0213	0.0172	3.5600e-003	382.5143
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	381.0213	381.0213	0.0172	3.5600e-003	382.5143
NaturalGas Mitigated	0.0156	0.1416	0.1190	8.5000e-004		0.0108	0.0108		0.0108	0.0108	0.0000	154.1787	154.1787	2.9600e-003	2.8300e-003	155.0949
NaturalGas Unmitigated	0.0156	0.1416	0.1190	8.5000e-004		0.0108	0.0108		0.0108	0.0108	0.0000	154.1787	154.1787	2.9600e-003	2.8300e-003	155.0949

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Heavy Industry	2.8892e+006	0.0156	0.1416	0.1190	8.5000e-004		0.0108	0.0108		0.0108	0.0108	0.0000	154.1787	154.1787	2.9600e-003	2.8300e-003	155.0949
Total		0.0156	0.1416	0.1190	8.5000e-004		0.0108	0.0108		0.0108	0.0108	0.0000	154.1787	154.1787	2.9600e-003	2.8300e-003	155.0949

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5.2 Energy by Land Use - Natural Gas

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Heavy Industry	2.8892e+006	0.0156	0.1416	0.1190	8.5000e-004		0.0108	0.0108		0.0108	0.0108	0.0000	154.1787	154.1787	2.9600e-003	2.8300e-003	155.0949
Total		0.0156	0.1416	0.1190	8.5000e-004		0.0108	0.0108		0.0108	0.0108	0.0000	154.1787	154.1787	2.9600e-003	2.8300e-003	155.0949

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Heavy Industry	1.30975e+006	381.0213	0.0172	3.5600e-003	382.5143
Total		381.0213	0.0172	3.5600e-003	382.5143

Stockton NuStar Related Project - San Joaquin Valley Unified APCD Air District, Annual

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Heavy Industry	1.30975e+006	381.0213	0.0172	3.5600e-003	382.5143
Total		381.0213	0.0172	3.5600e-003	382.5143

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.7133	1.0000e-005	1.4300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.7700e-003	2.7700e-003	1.0000e-005	0.0000	2.9500e-003
Unmitigated	0.7133	1.0000e-005	1.4300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.7700e-003	2.7700e-003	1.0000e-005	0.0000	2.9500e-003

Stockton NuStar Related Project - San Joaquin Valley Unified APCD Air District, Annual

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1078					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.6054					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.3000e-004	1.0000e-005	1.4300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.7700e-003	2.7700e-003	1.0000e-005	0.0000	2.9500e-003
Total	0.7132	1.0000e-005	1.4300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.7700e-003	2.7700e-003	1.0000e-005	0.0000	2.9500e-003

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1078					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.6054					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.3000e-004	1.0000e-005	1.4300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.7700e-003	2.7700e-003	1.0000e-005	0.0000	2.9500e-003
Total	0.7132	1.0000e-005	1.4300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.7700e-003	2.7700e-003	1.0000e-005	0.0000	2.9500e-003

7.0 Water Detail

Stockton NuStar Related Project - San Joaquin Valley Unified APCD Air District, Annual

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	67.7940	1.1705	0.0281	105.4326
Unmitigated	67.7940	1.1705	0.0281	105.4326

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Heavy Industry	35.8438 / 0	67.7940	1.1705	0.0281	105.4326
Total		67.7940	1.1705	0.0281	105.4326

Stockton NuStar Related Project - San Joaquin Valley Unified APCD Air District, Annual

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Heavy Industry	35.8438 / 0	67.7940	1.1705	0.0281	105.4326
Total		67.7940	1.1705	0.0281	105.4326

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	39.0149	2.3057	0.0000	96.6577
Unmitigated	39.0149	2.3057	0.0000	96.6577

Stockton NuStar Related Project - San Joaquin Valley Unified APCD Air District, Annual

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Heavy Industry	192.2	39.0149	2.3057	0.0000	96.6577
Total		39.0149	2.3057	0.0000	96.6577

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Heavy Industry	192.2	39.0149	2.3057	0.0000	96.6577
Total		39.0149	2.3057	0.0000	96.6577

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Stockton NuStar Related Project - San Joaquin Valley Unified APCD Air District, Annual

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

User Defined Equipment

Equipment Type	Number
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11.0 Vegetation



Appendix C

RD Rail and Truck Operational Emissions

Significance Thresholds (ton/yr)

	PM10	PM2.5	NOX	SOX	CO	VOC
	15	15	10	27	100	10

Source:

SJVAPCD. Air Quality Thresholds of Significance – Criteria Pollutants. March 19, 2015. http://www.valleyair.org/transportation/ceqa_idx.htm

Notes:

Thresholds apply to both on-site and off-site emissions. PM emissions include exhaust and fugitive dust.

NAAQS/CAAQS Screening Level (lb/day)

onsite only

Annual Operational Emissions - Related Project in SMAPCD (t

	PM10	PM2.5	NOX	SOX	CO	VOC
	100	100	100	100	100	100

Source:

SJVAPCD. Air Quality Thresholds of Significance – Criteria Pollutants. March 19, 2015. http://www.valleyair.org/transportation/ceqa_idx.htm

Notes:

Thresholds apply to on-site emissions only.

Annual Operational Emissions - Related Project (ton/yr)

Source Category	PM10	PM2.5	NOX	SOX	CO	VOC
2020 Project						
Trucks	0.09	0.04	4.21	0.01	0.86	0.21
Rail	0.04	0.04	2.06	0.00	0.45	0.07
2020 Project Total	0.13	0.09	6.27	0.01	1.31	0.28
CEQA Impacts						
SJVAPCD Significance Threshold	15	15	10	27	100	10
Significant?	No	No	No	No	No	No
Notes:	Emissions might not add precisely due to rounding.					

Average Daily Operational Emissions, On-Site - Related Project (lb/day)

Source Category	PM10	PM2.5	NOX	SOX	CO	VOC
2020 Project						
Trucks	0	0	2	0	1	0
Rail	0	0	0	0	0	0
2020 Project Total	0	0	2	0	1	0
CEQA Impacts						
SJVAPCD Significance Threshold	100	100	100	100	100	100
Significant?	No	No	No	No	No	No
Notes: Emissions might not add precisely due to rounding.						

Truck emissions include truck transit on-site and truck idling on-site.

No rail emissions occur on-site.

Annual GHG Emissions (mt) - Related Project

Source Category	CO2e
2020 Construction	187
Amortized Annual Construction	6
2020 Project Operation	
Trucks	2,181
Rail	470
Total	2,657
Notes: Emissions might not add precisely due to rounding. Construction emissions were amortized over 30 years. Total annual GHG emissions are the sum of amortized construction and annual operational emissions.	

BAAQMD Significance Thresholds

Pollutant/Precursor	Maximum Annual Emissions (tpy)	Average Daily Emissions (lb/day)
ROG	10	54
Nox	10	54
PM10	15	82
PM2.5	10	54

Source:

BAAQMD CEQA Guidelines 2017, Table 2-2.

Annual Operational Emissions - Related Project in BAAQMD (ton/yr)

Source Category	PM10	PM2.5	NOX	VOC
2020 Project				
Truck Transit	0.04	0.02	1.87	0.01
Rail Transit	0.00	0.00	0.00	0.00
CEQA Impacts				
BAAQMD Significance Threshold	15	10	10	10
Significant?	No	No	No	No
Notes:				
Emissions might not add precisely due to rounding.				
Truck transit split between BAAQMD and SMAPCD.				
No rail transit in BAAQMD. Annual Operational Emissions - Related Project (t				

Daily Operational Emissions - Project in BAAQMD (lb/day)

Source Category	PM10	PM2.5	NOX	VOC
2020 Project				
Truck Transit	0.21	0.11	10.22	0.03
Rail Transit	0.00	0.00	0.00	0.00
CEQA Impacts				
BAAQMD Significance Threshold	82	54	54	54
Significant?	No	No	No	No
Notes:				
Emissions might not add precisely due to rounding.				
Truck transit split between BAAQMD and SMAPCD.				
No rail transit in BAAQMD.				

SMAPCD Significance Thresholds

Pollutant/Precursor	Maximum Annual Emissions (tpy)	Average Daily Emissions (lb/day)
ROG	na	65
Nox	na	65
PM10	14.6	80
PM2.5	15	82

Source:

SMAPCD CEQA Guidelines 2009, Revised November 2014, May 2015.

Annual Operational Emissions - Related Project in SMAPCD (ton/yr)

Source Category	PM10	PM2.5
2020 Project		
Truck Transit	0.04	0.02
Rail Transit	0.02	0.02
CEQA Impacts		
SMAPCD Significance Threshold	14.6	15
Significant?	No	No
Notes:		
Emissions might not add precisely due to rounding. Truck transit split between BAAQMD and SMAPCD.		

Daily Operational Emissions - Related Project in SMAPCD (lb/day)

Source Category	PM10	PM2.5	NOX	VOC
2020 Project				
Truck Transit	0.21	0.11	10.22	0.03
Rail Transit	0.10	0.09	10.77	0.17
CEQA Impacts				
SMAPCD Significance Threshold	80	82	65	65
Significant?	No	No	No	No
Notes:				
Emissions might not add precisely due to rounding. Truck transit split between BAAQMD and SMAPCD.				

Truck Activity and Emissions

Activity							Emissions (lb/yr)						In California			
Year	Barrels/yr	Number of Trucks/yr	Annual Truck Trips (1-way)	Distance Traveled (mi/1-way) in SJAPCD	Distance Traveled (mi/1-way) in CA	Idling Time (hr/call)	PM10	PM2.5	NOX	SOX	CO	VOC	CO2	CH4	N2O	CO2e
2020 Transit On-Site	1,650,000	8,250	16,500		0.25		1.20	0.62	55.14	0.16	8.15	2.28	16,941.29	0.11	2.66	17,769.02
2020 Transit Off-Site					35	66	167.89	86.72	7,719.89	22.41	1,140.71	318.83	4,472,499	28	703	4,691,020
2020 Idling During Transit							0.05	0.04	136.89	0.21	81.86	7.86	22,640.71	0.37	3.56	23,751.61
2020 On-Site Idling						0.33	1.56	1.44	513.00	0.81	490.05	87.37	76,793.61	0.00	0.00	76,793.61
2020 On-Site Total							2.76	2.06	568.14	0.97	498.19	89.65	93,734.90	0.11	2.66	94,562.63
2020 Total							170.70	88.82	8,424.93	23.60	1,720.77	416.34	4,588,874.92	28.40	709.24	4,809,334.51
Notes:							0.085352	0.044412	4.212464	0.011798	0.860384	0.208171	2294.437458	0.0141983	0.354618	2404.667256

Activity based on *NuStar_NOP_060519.docx*.

Transit distance provided by NuStar: Email. From: Cheri Velzy <Cheri.Velzy@erm.com>; Sent: Friday, July 12, 2019 11:21 AM; To: Lora Granovsky <lora.granovsky@ilancoenvironmental.com>; Subject: RE: NuStar RD rail assumptions
 Idling time onsite assumed as 20 minutes per call.

TPY

EMFAC Output

EMFAC2017 (v1.0.2) Emission Rates

Region Type: Air Basin

Region: SAN JOAQUIN VALLEY

Calendar Year: 2020

Season: Annual

Vehicle Classification: EMFAC2011 Categories

Units: miles/day for VMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HTSK and RUNLS, g/vehicle/day for IDLEX, RESTL and DIURN

Region	Calendar Y	Vehicle Category	Model Yea	Speed	Fuel	Population	VMT	Trips	ROG_RUN	ROG_IDLE	ROG_STRE	ROG_HOT	ROG_RUN	ROG_REST	ROG_DIUF
SAN JOAQUIN \	2020	T7 other port	Aggregater	Aggregater	DSL	277.1187	44538.9381	2106.102	0.25043	1.642471	0	0	0	0	0

EMFAC Output

EMFAC2017 (v1.0.2) Emiss
Region Type: Air Basin
Region: SAN JOAQUIN VAL
Calendar Year: 2020
Season: Annual
Vehicle Classification: EMF
Units: miles/day for VMT, t

Region	Calendar Y	TOG_RUNI	TOG_IDLE	TOG_STRE	TOG_HOT	TOG_RUNI	TOG_REST	TOG_DIUR	CO_RUNE	CO_IDLEX	CO_STREX	NOX_RUNI	NOX_IDLE	NOX_STRE	CO2_RUNI	CO2_IDLE	CO2_STRE	CH4_RUNI	CH4_IDLE	
SAN JOAQUIN \	2020	0.285096	1.869828		0	0	0	0	0	0.895977	17.10392	0	6.063623	28.60111	1.035967	1862.925	4730.344	0	0.011632	0.076289

EMFAC Output

EMFAC2017 (v1.0.2) Emiss
Region Type: Air Basin
Region: SAN JOAQUIN VAL
Calendar Year: 2020
Season: Annual
Vehicle Classification: EMF
Units: miles/day for VMT, t

Region	Calendar Y	CH4_STRE	PM10_RUI	PM10_IDL	PM10_STF	PM10_PM	PM10_PM	PM2_5_RI	PM2_5_ID	PM2_5_ST	PM2_5_PN	PM2_5_PN	SOx_RUNE	SOx_IDLEX	SOx_STRE	N2O_RUNI	N2O_IDLE	N2O_STRE
SAN JOAQUIN \	2020	0	0.034133	0.009601	0	0.036	0.06174	0.032656	0.009186	0	0.009	0.02646	0.0176	0.04469	0	0.292826	0.743544	0

EMFAC Output

Onsite Idling Emission Factors

CARB EMFAC2011 idling emission rates document. https://www.arb.ca.gov/msei/categories.htm#onroad_motor_vehicles. Last accessed 11/8/18.

EMFAC20										CO2 (with				
07										Pavley+LC				
Vehicle				HC (g/hr-	CO (g/hr-	NOX (g/hr-	PM10	PM2.5	CO2 (g/hr-	FS) (g/hr-	TOG (g/hr-	ROG (g/hr-	Sox (g/hr-	
CY	Category	Fuel_Type	air_basin	veh)	veh)	veh)	(g/hr-veh)	(g/hr-veh)	veh)	veh)	veh)	veh)	veh)	veh)
2021	HHDT	D	SIV	a	5.689764	40.41538	42.3087167	0.129041	0.118718	7037.087	6333.379	8.202932	7.205517	0.067137

Employee Vehicle Activity and Emissions

Activity				Emissions (lb/yr)									
Year	Annual Employee Vehicles	Distance Traveled (mi/1-way)	Number Trips/Call	PM10	PM2.5	NOX	SOX	CO	VOC	CO2	CH4	N2O	CO2e
2019	0	16.8	2	0	0	0	0	0	0	0	0	0	0

Notes:

Activity provided in NOP, October 2018. 20 employees.

Distance travelled based on CalEEMod default for home to work trips in San Joaquin County.

Switching Locomotive Emissions			
Switching Fuel Usage Determination			
Parameter	Value	Units	Reference
Rail cars per year - Project Increment	2,475	rail cars per year	Project Description
Rail cars per train	16	rail cars per train	Phone communication with Cheri Velzy (ERM) on 7/12/19, 11:20am.
Manifest trains per year - Project Increment	155	trains per year	Calculated
Number of locomotives required per switch	2	per train	Based on past Port documents and confirmed by ERM (phone communication with Cheri Velzy (ERM) on 7/16/19).
Port of Stockton and SJV switching events, manifest rail	2	per train	Based on past Port documents and confirmed by ERM (phone communication with Cheri Velzy (ERM) on 7/16/19).
Switching time	2	hour/train	Based on past Port documents and confirmed by ERM (phone communication with Cheri Velzy (ERM) on 7/16/19).
Fuel used per hour per locomotive	8	gal/hr/locomotive	Calculated based on CCT switcher fleet and CARB's Toxic Air Contaminant Emissions Inventory and Air Dispersion Modeling Report for the Stockton Rail Yard, California
Fuel used	65	gal/train	Calculated
Project (2020) Average Switching Emissions			
Pollutant	Switching Locomotive Emission Factor (g/gal)	Average Daily Emissions (lb/day)	Annual Emissions Emissions (ton/yr)
NOx	83.61	5.07	0.93
PM10	2.96	0.18	0.03
PM2.5	2.9	0.17	0.03
VOC	4.8	0.29	0.05
CO	22.53	1.37	0.25
SOx	0.09	0.01	0.00
CO2e	10,208.00	619.53	113.06
CO2e annual emissions are presented in short tons of CO2e per year.			
Source: Reflects switching fleet provided by Central California raction Company (CCT) and emission factors from CARB 2017 Short Line / Class III Documentation. Last accessed 10/2/2018: https://www.arb.ca.gov/msei/ordiesel.htm			
PM2.5 is 97% of PM10			
HC emission factor converted to VOC = 1.053 * HC			
SO2 Emission Factor - Switchers			
SO2 (g/gal)=	0.09		
(fuel density) * (MW SO2/ MW S) * (S content of fuel) * (conversion factor)			
Where:			
Fuel density	3,200	g/gal	
the fraction of fuel sulfur converted to SO2	97.8%		
S content of fuel in parts per million (ppm)	15	ppm	
S MW = Molecular Weight	32		
SO2 MW = Molecular Weight	64		
CO2 Emission Factor - Switchers			
CO2 (g/gal)=	10,208.00		
(fuel density) * (MW CO2/ MW C) * (C content of fuel)			
Where:			
Fuel density	3,200	g/gal	
the fraction of fuel sulfur converted to CO2	87%		
C MW = Molecular Weight	12		
CO2 MW = Molecular Weight	44		

Switcher Engine Emission Factors

CCT Switchers⁽¹⁾

Engine Tier	Switcher Emission Factors (g/gal)				Switchers Project Emission Factors (g/gal)			
	PM ₁₀	HC	NO _x	CO	PM ₁₀	HC	NO _x	CO
4 SW 1500s Brookville Ganset locomotives Tier 0	97%	4.864	7.296	130.72	19.454			
3 Brookville Ganset locomotives Tier 4	43%	0.416	0.832	20.8	26.624	3020	2.96	4.93
							83.61	25.51

Notes:
 1. CCT Switchers.pdf. Switching operations provided by Central California Traction Company (CCT).
 CCT operates 7 locomotives: 4 SW 1500s and 3 Brookville Ganset locomotives Tier IV, per CCT website (last accessed 10/2/2018) <http://www.cctrailroad.com/>

Power Distribution in Switcher Mode⁽²⁾

Notch Position	Power (hp) ⁽³⁾	Idle								Power in Duty Cycle (hp)	Fuel Use in Duty Cycle (gal/hr)	Composite Fuel Use in Duty Cycle (gal/hr)	
		0%	1%	2%	3%	4%	5%	6%	7%				8%
Time in Notch		44.2%	0.0%	5.0%	25.0%	2.3%	21.5%	1.9%	0.6%	0.0%	0.0%		
4 SW 1500s	1800	463	0	78	375	35	323	23	0	0	0	154	4
3 Brookville Ganset locomotives Tier IV	1200	530	0	60	300	28	25.8	18	7	0	0	120	4

Notes:
 1. Time in notch based on CABB's Toxic Air Contaminant Emissions Inventory and Air Dispersion Modeling Report for the Stockton Rail Yard, California, January 2007. Available: <https://ww2.arb.ca.gov/resources/documents/air/yard-health-risk-assessments-and-mitigation-measures>. Accessed: 7/2019.
 2. SW 1500 locomotives.pdf. Available: [https://www.brookvilleccrs.com/BROOKVILLE Shps. CcGans-cc-CCT 04.10.2015 and New-News-Corporate App](https://www.brookvilleccrs.com/BROOKVILLE%20Shops%20CCT%2004.10.2015.and%20New%20Corporate%20App). Accessed: 7/2019.
 3. Brookville Tier-4 CCTp.d.f. http://www.gatz.com/wwp/wacm/connect/GATX/GATX_SITE/Home/Rail-North-America/Products/EquipmentTypes/Locomotives/53W1500/

Switcher Emission Factors (g/20hp-hr)

	PM ₁₀	HC	NO _x	CO
Pre-Tier	0.32	0.48	13	1.28
Tier 0	0.32	0.48	8.6	1.28
Tier 0+	0.2	0.3	7.2	1.28
Tier 1	0.32	0.47	6.7	1.28
Tier 1+	0.2	0.29	6.7	1.28
Tier 2	0.18	0.26	4.95	1.28
Tier 2+	0.08	0.13	4.95	1.28
Tier 3	0.08	0.13	4.95	1.28
Tier 4	0.02	0.04	1	1.28

Switcher Emission Factors (g/gal)

	PM ₁₀	HC	NO _x	CO
Pre-Tier	4.864	7.296	137.6	19.456
Tier 0	4.864	7.296	130.72	19.456
Tier 0+	3.64	5.46	131.04	23.296
Tier 1	5.824	8.544	121.84	23.296
Tier 1+	3.64	5.278	121.84	23.296
Tier 2	3.744	5.408	102.96	26.624
Tier 2+	1.664	2.704	102.96	26.624
Tier 3	1.664	2.704	102.96	26.624
Tier 4	0.416	0.832	20.8	26.624

Source: CARB, 2017 Short Line / Class III Documentation, Table 5.1. Available: <https://www.arb.ca.gov/msse/ordisepd.htm>. Accessed: 7/2019.

Switcher Conversion Factors (lb/hp-hr/gal)

Pre-Tier, Tier 0	15.3
Tier 0, Tier 1, Tier 1+	18.2
Tier 0, Tier 2, Tier 3, Tier 4	20.8

Source: CARB, 2017 Short Line / Class III Documentation, Table 5.2. Available: <https://www.arb.ca.gov/msse/ordisepd.htm>. Accessed: 7/2019.

Line-Haul Locomotive Emissions

Project (2020) Average Line-Haul Emissions	Empty Train		Filled Train		In SJVAPCD		In Sacramento Metro		In California		
	Line-Haul Locomotive Emission Factor (g/gal)	Average Daily Emissions (lb/day)	Annual Emissions (ton/yr)	Average Daily Emissions (lb/day)	Annual Emissions (ton/yr)	Total Average Day Line-Haul Emissions (lb/day)	Total Annual Line-Haul Emissions (ton/yr)	Total Average Day Line-Haul Emissions (lb/day)	Total Annual Line-Haul Emissions (ton/yr)	Total Average Day Line-Haul Emissions (lb/day)	Total Annual Line-Haul Emissions (ton/yr)
NOx	81.23	1.65	0.30	4.54	0.83	6.19	1.13	10.77	1.97		
PM10	1.36	0.03	0.01	0.03	0.01	0.06	0.01	0.10	0.02		
PM2.5	1.31	0.03	0.00	0.03	0.00	0.05	0.01	0.09	0.02		
VOC	2.40	0.05	0.01	0.05	0.01	0.10	0.02	0.17	0.03		
CO	26.62	0.54	0.10	0.54	0.10	1.08	0.20	1.88	0.34		
SOx	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00		
CO2e	10,208.00	207.23	37.82	207.23	37.82	414.47	75.64	720.81	131.55	2216.50	404.51

Notes:
 CO2e annual emissions are presented in short tons of CO2e per year.
 Source: CARB, 2017 Line Haul / Class 1 Documentation <https://www.arb.ca.gov/msei/ordiesel.htm> and 2017 Emissions Inventory Aggregated at County/Air Basin/State. Last accessed 10/2/2018: <https://www.arb.ca.gov/msei/ordiesel.htm>
 PM2.5 is 97% of PM10
 HC emission factor converted to VOC = 1.053 * HC

Line-Haul Fuel Usage	Parameter	Value	Units	Reference
Additional RD to be Transported		69,300,000	gallons/yr	1,650,000 barrels per year
RD Volume in Tank Car		28,000	gal/car	https://www.gbrx.com/manufacturing/north-america-rail/tank-cars/284k-tank-crude-oil-general-purpose/
Additional Number of Tank Cars		2,475	cars/year	Project Description
Density of RD		6.43	lbs/gal	Specific density for Renewable Diesel
Number of Rail Cars per Train		100	rail cars/train	ECOEnergy EIR, Appendix C
Net Aggregated Fuel Consumption Index (Gross Weight - Locomotive Weight) (Line Hauling)		868	ton-miles/gal	Calculated from: California Air Resources Board (ARB), 2017, "2016 Line Haul Locomotive Model & Update". October. Available at: https://www.arb.ca.gov/msei/ordiesel.htm
Locomotives				
Number of locomotives per train		2	locomotives/train	
Weight of locomotive		208	ton/locomotive	General Electric ET44C4
Miles traveled		23	miles/1-way	Provided by ERM and confirmed via telephone communication with Cheri Velzy (ERM) on 7/12/19 and 7/16/19.
Fuel consumption		273	gal/yr (1-way trip)	
Empty Rail Cars				
Weight of empty tank car		47	tons/car	https://www.gbrx.com/manufacturing/north-america-rail/tank-cars/284k-tank-crude-oil-general-purpose/
Weight of empty tank cars per year		116,573	tons/year	
Miles traveled		23	miles/1-way	Provided by ERM and confirmed via telephone communication with Cheri Velzy (ERM) on 7/12/19 and 7/16/19.
Fuel consumption		3,088	gal/yr (1-way trip)	
Product Transported				
Weight of product transported per year		222,659	tons/yr	
Miles traveled		23	miles/1-way	Provided by ERM and confirmed via telephone communication with Cheri Velzy (ERM) on 7/12/19 and 7/16/19.
Fuel consumption		5,899	gal/yr (1-way trip)	

Fuel Consumption Index Calculation	Parameter	Value	Units
Roseville to Fresno: positive grade		0.0058	
Roseville to Fresno: negative grade		-0.0048	
GTM/gal		832	GTM/gal
Fresno to Roseville: positive grade		0.0048	
Fresno to Roseville: negative grade		-0.0058	
Fuel productivity (CARB equation)		904	GTM/gal
Composite Fuel Consumption Index		868	ton-mile/gal

Reference: California Air Resources Board (ARB), 2017, "2016 Line Haul Locomotive Model & Update". October. Available at: <https://www.arb.ca.gov/msei/ordiesel.htm>

SO2 Emission Factor - Line Haul	Parameter	Value
SO2 (g/gal) = (fuel density) * (MW SO2/ MW S) * (S content of fuel) * (conversion factor)		0.09
Where:		
Fuel density		3,200 g/gal
the fraction of fuel sulfur converted to SO2		97.8%
S content of fuel in parts per million (ppm)		15 ppm
S MW = Molecular Weight		32
SO2 MW = Molecular Weight		64

Rail Transit Distance	Distance (1-way miles)	Distance in SJVAPCD (1-way miles)	Distance in Sacramento Metro (1-way miles)	Total Distance to CA Boundary (1-way miles)	Direction
Port to Galt	23	23			N
Galt to Roseville rail yard	40		40		N
Roseville to CA boundary	100			123	NE

Source: Google Earth

CO2 Emission Factor - Line Haul	Parameter	Value
CO2 (g/gal) = (fuel density) * (MW CO2/ MW C) * (C content of fuel)		10,208.00
Where:		
Fuel density		3,200 g/gal
the fraction of fuel sulfur converted to CO2		87%
C MW = Molecular Weight		12
CO2 MW = Molecular Weight		44

Line Haul Engine Emission Factors									

U.S. EPA Emission Factors (g/gal)					Tier Distribution	Line Haul Project Emission Factors (g/gal)					
	PM ₁₀	HC	NO _x	CO	2020		PM ₁₀	HC	NO _x	CO	
Pre-Tier	6.66	9.98	270.4	26.62	0%		2020	1.36	2.28	81.23	26.62
Tier 0	6.66	9.98	178.88	26.62	0%						
Tier 0+	4.16	6.24	149.76	26.62	1%						
Tier 1	6.66	9.78	139.36	26.62	0%						
Tier 1+	4.16	6.03	139.36	26.62	2%						
Tier 2	3.74	5.41	102.96	26.62	0%						
Tier 2+	1.66	2.7	102.96	26.62	36%						
Tier 3	1.66	2.7	102.96	26.62	33%						
Tier 4	0.31	0.83	20.8	26.62	28%						

Source:
 CARB. 2017 Line Haul / Class I Documentation. Last accessed 10/2/2018: <https://www.arb.ca.gov/msei/ordiesel.htm>
 Tier distribution calculated by applying CARB Tier distribution for analysis year. CARB. 2017 Emissions Inventory Aggregated at County/Air Basin/State. Last accessed 10/2/2018: <https://www.arb.ca.gov/msei/ordiesel.htm>

Line Haul Locomotives Tier Distribution									
	Pre-Tier	Tier 0	Tier 0+	Tier 1	Tier 1+	Tier 2	Tier 2+	Tier 3	Tier 4
2019	0%	0%	2%	0%	2%	5%	38%	32%	21%
2020	0%	0%	1%	0%	2%	0%	36%	33%	28%
2021	0%	0%	1%	0%	1%	0%	31%	33%	34%
2022	0%	0%	0%	0%	1%	0%	24%	34%	40%
2023	0%	0%	0%	0%	1%	0%	19%	34%	46%
2024	0%	0%	0%	0%	1%	0%	13%	32%	53%
2025	0%	0%	0%	0%	0%	0%	8%	31%	60%
2026	0%	0%	0%	0%	0%	0%	3%	30%	67%
2027	0%	0%	0%	0%	0%	0%	3%	24%	73%
2028	0%	0%	0%	0%	0%	0%	2%	18%	80%
2029	0%	0%	0%	0%	0%	0%	2%	13%	86%
2030	0%	0%	0%	0%	0%	0%	1%	8%	91%
2031	0%	0%	0%	0%	0%	0%	1%	2%	97%
2032	0%	0%	0%	0%	0%	0%	0%	2%	97%
2033	0%	0%	0%	0%	0%	0%	0%	2%	98%
2034	0%	0%	0%	0%	0%	0%	0%	2%	98%
2035	0%	0%	0%	0%	0%	0%	0%	1%	99%
2036	0%	0%	0%	0%	0%	0%	0%	1%	99%
2037	0%	0%	0%	0%	0%	0%	0%	0%	100%
2038	0%	0%	0%	0%	0%	0%	0%	0%	100%
2039	0%	0%	0%	0%	0%	0%	0%	0%	100%
2040	0%	0%	0%	0%	0%	0%	0%	0%	100%

Source:
 CARB. 2017 Emissions Inventory Aggregated at County/Air Basin/State. Last accessed 10/2/2018: <https://www.arb.ca.gov/msei/ordiesel.htm>

Conversions		
HC to VOC	1.053	EPA, 2010. Conversion Factors for Hydrocarbon Emission Components, EPA-420-R-10-015. July. Available online: http://www.epa.gov/oms/models/nonrdmdl/nonrdmdl2010/420r10015.pdf
g to lb	0.00220459	
g to mton	0.000001	
hp to kW	0.74599	
mile to nautical mile	0.86897624	
ton to metric ton	0.907185	
Global Warming Potentials (GWP)		
CO2	CH4	N2O
1	21	310
Source: The Climate Registry, General Protocols, v. 2.0, Table B.2. March 2013.		



Appendix D

Biological Resources



Table 7: Special-Status Species Potentially Present in the Project Area

Species	Federal	State	Habitat Association	Potential to Occur
Invertebrates				
Valley elderberry longhorn beetle (<i>Desmocerus californicus dimorphus</i>)	T	-	Riparian scrub in association with blue elderberry (<i>Sambucus mexicana</i>)	No potential to occur. Habitat not present.
Vernal pool tadpole shrimp (<i>Lepidurus packardii</i>)	E	-	Valley and foothill grassland; vernal pool; wetland	No potential to occur. Habitat not present.
Amphibians				
California tiger salamander (<i>Ambystoma californiense</i>)	T	T	Cismontane woodland; meadow and seep; riparian woodland; valley and foothill grassland	No potential to occur. Habitat not present.
Western pond turtle (<i>Emys marmorata</i>)	-	SSC	Aquatic; flowing waters; standing waters; wetland	No potential to occur. Habitat not present.
Birds				
Tricolored blackbird (<i>Agelaius tricolor</i>)	-	CE; SSC	Freshwater marsh; marsh and swamp; swamp; wetland	No potential to occur. Habitat not present.
Burrowing owl (<i>Athene cucularia</i>)	-	SSC	Prairie; scrub; grassland	No potential to occur. Habitat not present.
White-tailed kite (<i>Elanus leucurus</i>)	-	FP	Open grasslands; savanna; open woodlands; marshes; desert grassland; partially cleared lands; cultivated fields	Very low potential to occur in trees surrounding the project site.
Swainson's hawk (<i>Buteo swainsoni</i>)	-	T	Great basin grassland; riparian forest; riparian woodland; valley and foothill grassland	Very low potential to occur in trees surrounding the project site.
Least Bell's vireo (<i>Vireo bellii pusillus</i>)	E	E	Riparian forest; riparian scrub; riparian woodland	No potential to occur. Habitat not present.



Species	Federal	State	Habitat Association	Potential to Occur
California black rail (<i>Laterallus jamaicensis coturniculus</i>)	-	T; FP	Brackish marsh; freshwater marsh; marsh and swamp; salt marsh; wetland	No potential to occur. Habitat not present.
Song sparrow ("Modesto" population) (<i>Melospiza melodia</i>)	-	SSC	Riparian shrub-scrub	No potential to occur. Habitat not present.
Yellow-headed blackbird (<i>Xanthocephalus xanthocephalus</i>)	-	SSC	Marsh and swamp; wetland	No potential to occur. Habitat not present.
Loggerhead shrike (<i>Lanius ludovicianus</i>)	-	SSC	Broadleaved upland forest, Desert wash, Joshua tree woodland, Mojavean desert scrub, Pinon and juniper woodlands, Riparian woodland, Sonoran desert scrub	No potential to occur. Habitat not present.
Mammals				
Riparian brush rabbit (<i>Sylvilagus bachmani riparius</i>)	E	E	Riparian forest	No potential to occur. Habitat not present.
American badger (<i>Taxidea taxus</i>)	-	SSC	Variety of terrestrial habitats	No potential to occur. Habitat not present.
Fish				
Delta smelt (<i>Hypomesus transpacificus</i>)	T	E	Aquatic; estuary	No potential to occur. Habitat not present.
Steelhead - Central Valley DPS (<i>Oncorhynchus mykiss irideus</i>)	T	-	Aquatic; Sacramento/San Joaquin flowing waters	No potential to occur. Habitat not present.
Longfin smelt (<i>Spirinchus thaleichthys</i>)	C	T; SSC	Aquatic; estuary	No potential to occur. Habitat not present.
Reptiles				
Giant garter snake (<i>Thamnophis gigas</i>)	T	T	Marsh and swamp; riparian scrub; wetland	No potential to occur. Habitat not present.
Plants				
Palmate-bracted salty bird's-beak (<i>Chloropyron palmatum</i>)	E	E; 1B.1	Chenopod scrub; meadow and seep; valley and foothill grassland; wetland	No potential to occur. Habitat not present.



Species	Federal	State	Habitat Association	Potential to Occur
Delta button-celery (<i>Eryngium racemosum</i>)	-	E; 1B.1	Riparian scrub; wetland	No potential to occur. Habitat not present.

Notes:

Source: California Natural Diversity Database 2019 search of Project area and surrounding quadrangles (Stockton West, Terminous, Lodi South, Waterloo, Stockton East, Manteca, Lathrop, Union Island, and Holt).

C: candidate

E: endangered

FP: California Department of Fish and Wildlife fully protected

T: threatened

SSC: state species of special concern

Rare Plant Rank 1B.1 – rare, threatened, or endangered in California and elsewhere; seriously threatened in California (more than 80% of occurrences threatened/high degree and immediacy of threat)

Table 8: CNPS List Plant Species with the Potential to Occur in the Study Area

Common Name	Scientific Name	California Rare Plant Rank
Alkali milk-vetch	<i>Astragalus tener var. tener</i>	1B.2
Heartscale	<i>Atriplex cordulata var. cordulata</i>	1B.2
Big tarplant	<i>Blepharizonia plumosa</i>	1B.1
Watershield	<i>Brasenia schreberi</i>	2B.3
Bristly sedge	<i>Carex comosa</i>	2B.1
Palmate-bracted salty bird's-beak	<i>Chloropyron palmatum</i>	1B.1 (Federal Endangered; State Endangered)
Slough thistle	<i>Cirsium crassicaule</i>	1B.1
Recurved larkspur	<i>Delphinium recurvatum</i>	1B.2
Delta button-celery	<i>Eryngium racemosum</i>	1B.1 (State Endangered)
San Joaquin spearscale	<i>Extriplex joaquinana</i>	1B.2
Woolly rose-mallow	<i>Hibiscus lasiocarpus var. occidentalis</i>	1B.2
Delta tule pea	<i>Lathyrus jepsonii var. jepsonii</i>	1B.2
Mason's lilaeopsis	<i>Lilaeopsis masonii</i>	1B.1
Delta mudwort	<i>Limosella australis</i>	2B.1
Sanford's arrowhead	<i>Sagittaria sanfordii</i>	1B.2



Common Name	Scientific Name	California Rare Plant Rank
Side-flowering skullcap	<i>Scutellaria lateriflora</i>	2B.2
Suisun Marsh aster	<i>Symphyotrichum lentum</i>	1B.2
Wright's trichocoronis	<i>Trichocoronis wrightii</i> var. <i>wrightii</i>	2B.1
Saline clover	<i>Trifolium hydrophilum</i>	1B.2
Caper-fruited tropidocarpum	<i>Tropidocarpum capparideum</i>	1B.1

Notes:

Source: California Department of Fish and Wildlife, 2019. California Native Diversity Database Rarefind 5 Program Search of Stockton West Terminous, Lodi South, Waterloo, Stockton East, Manteca, Lathrop, Union Island, and Holt quadrangles.

Rare Plant Rank 1B.1: rare, threatened, or endangered in California and elsewhere; seriously threatened in California (over 80% of occurrences threatened/high degree and immediacy of threat)

Rare Plant Rank 1B.2: rare, threatened, or endangered in California and elsewhere; fairly threatened in California (20-80% occurrences threatened/moderate degree and immediacy of threat)

Rare Plant Rank 2B.1: rare, threatened, or endangered in California, but more common elsewhere; seriously threatened in California (over 80% of occurrences threatened/high degree and immediacy of threat)

Rare Plant Rank 2B.2: rare, threatened, or endangered in California, but more common elsewhere; moderately threatened in California (20-80% occurrences threatened/moderate degree and immediacy of threat)

Rare Plant Rank 2B.3: rare, threatened, or endangered in California, but more common elsewhere; not very threatened in California (less than 20% of occurrences threatened/low degree and immediacy of threat or no current threats known)