

Appendix B

Tables

Table 1
Rail Improvements Construction Timeline

Construction Element	Approximate Schedule		
	Start	End	Number of Days
Rail Bridge Replacement: Track LD01 Construction	2023	2024	
Construct South Temporary Work Platform	July 2023	August 2023	30
LD01 Bridge Foundations	August 2023	October 2023	60
Bridge Piers	July 2024	August 2024	32
Erection of Superstructure on LD01	August 2024	August 2024	13
Removal of South Temporary Work Platform	August 2024	September 2024	30
Rail Bridge Replacement: Track LD02 Construction	2025	2025	
Construct North Temporary Work Platform	July 2025	August 2025	30
Existing Bridge Removal	August 2025	September 2025	31
LD02 Bridge Foundations	August 2025	September 2025	32
Bridge Piers	September 2025	October 2025	32
Erection of Superstructure on LD02	October 2025	November 2025	13
Removal of North Temporary Work Platform	October 2025	November 2025	30
Second Lead Track Construction	2023	2024	
Earthwork, Trackwork, and Construction of Fresno Avenue Underpass	July 2023	November 2023	97
Earthwork and Track Construction – Port	November 2023	December 2023	32
Track Removal and Reconnection – Port Side	January 2024	February 2024	36
Track Removal and Reconnection – Bridge Approaches	February 2024	May 2024	65
McCloy Classification Yard Construction	2023	2024	
Earthwork and Track Construction	July 2023	April 2024	215
Track Removal and Reconnection	April 2024	July 2024	52

Table 2
Rail Bridge Construction Phasing

Rail Bridge Construction Activities ¹	Duration (weeks)	In-Water ³	Year
Construct temporary work platform to the south of existing bridge: Remove existing in-water timber piles, drive steel piles, and construct timber deck	7	yes	1
Construct bridge foundations for Track LD01: Construct a coffer dam below mudline for installation of HP steel piles, drive steel (HP and CISS) piles for abutments and piers, and fill pipe piles with concrete	10	yes	
Construct Track LD01 rail bridge²: Install pre-cast concrete abutment caps, pour cast-in-place concrete pier caps, erect steel superstructure, construct tracks, and shift rail traffic from existing bridge to LD01	9	no	
Remove temporary work platform: Deconstruct timber deck and remove temporary steel piles	6	yes	2
Construct temporary work platform to the north of existing bridge: Remove existing in-water timber piles, drive temporary steel piles, and construct timber deck	7	yes	
Remove existing rail bridge: Remove bridge super structure, remove existing concrete swing pier and abutments (may require use of a cofferdam), and remove existing in-water timber piles	6	yes	
Construct bridge foundations for Track LD02: Construct a coffer dam below mudline for installation of HP steel piles, drive steel (HP and CISS) piles for abutments and piers, and fill pipe piles with concrete	6	yes	3
Construct Track LD02 rail bridge: Install pre-cast concrete abutment caps, pour cast-in-place concrete pier caps, erect steel superstructure, construct tracks, and open LD02 to rail traffic	9	no	

Notes:

1. Assumes that both HP steel and CISS would be used (final design may use one or the other)
2. Assumes that construction of rail switch to connect LD02 to existing railway would occur concurrently with construction of LD02 bridge
3. Assumes that contractor would perform some steps concurrently to complete in-water work during the allotted July 1 to November 30 work window

CISS: cast-in-steel shell

HP: H-Pile

Table 3
Port Rail System With and Without the Proposed Rail System Improvements

	2021 Volumes	Port Rail Infrastructure Ability to Accommodate 2026 Train Volumes	
		Without Proposed Action Improvements (No Action Alternative)	With Proposed Action Improvements
Total trains per week	21 average (up to 28 possible)	28	34
Total weekly train travel time within Port (hours)	138	231	280 ^a
Average travel time per train (hours)	6.6	8.25	8.25
Total weekly idle time (hours)	42	55	67 ^a
Average idle time per train (hours)	2	2	2
700 Yard staging total weekly blockage time (hours)	48	64	0
Port lead track total weekly blockage time (hours)	124	140	76

Note:

- a. Projected values assume the same average travel and idle times for future operations once trains have entered the Port through the lead track.

Table 4
California and National Ambient Air Quality Standards

Pollutant	Averaging Period	California Standards	National Standards	Health Effects
O ₃	1-hour	0.09 ppm	--	Breathing difficulties, lung tissue damage
	8-hour ^a	0.070 ppm	0.070 ppm	
PM ₁₀	24-hour	50 µg/m ³	150 µg/m ³	Increased respiratory disease, lung damage, cancer, premature death
	Annual	20 µg/m ³	--	
PM _{2.5}	24-hour ^b	--	35 µg/m ³	Increased respiratory disease, lung damage, cancer, premature death
	Annual	12 µg/m ³	12 µg/m ³	
CO	1-hour	20 ppm	35 ppm	Chest pain in heart patients, headaches, reduced mental alertness
	8-hour	9.0 ppm	9 ppm	
NO ₂	1-hour	0.18 ppm	0.10 ppm ^c	Lung irritation and damage
	Annual	0.030 ppm	0.053 ppm	
SO ₂	1-hour	0.25 ppm	0.075 ppm ^c	Increased lung disease and breathing problems for asthmatics
	3-hour	--	0.5 ppm	
	24-hour	0.04 ppm	--	

Notes:

- The federal 8-hour O₃ standard is based on the annual fourth-highest daily maximum 8-hour concentration, averaged over 3 years.
- The federal 24-hour PM_{2.5} standard is based on the 3-year average of the 98th percentile of the daily values.
- The federal 1-hour NO₂ and SO₂ standards are based on the 3-year average of the 98th and 99th percentile of daily maximum values, respectively.

ARB (California Air Resources Board), 2022. "California Ambient Air Quality Standards." Accessed February 4, 2022. Available at: <https://ww2.arb.ca.gov/resources/california-ambient-air-quality-standards>.

USEPA (U.S. Environmental Protection Agency), 2021. "NAAQS Table." Accessed January 31, 2022. Available at: <https://www.epa.gov/criteria-air-pollutants/naaqs-table>.

µg/m³: micrograms per cubic meter

CO: carbon monoxide

NO₂: nitrogen dioxide

O₃: ozone

PM_{2.5}: particulate matter less than 2.5 micrometers in diameter

PM₁₀: particulate matter less than 10 micrometers in diameter

ppm: parts per million

SO₂: sulfur dioxide

Table 5
Attainment Status of San Joaquin Valley

Pollutant	Attainment Status	
	Federal	State
Ozone 1-hour	No Federal Standard ^a	Nonattainment
Ozone 8-hour	Nonattainment	Nonattainment
Nitrogen Dioxide	Attainment/Unclassified	Attainment
Carbon Monoxide	Attainment/Unclassified	Attainment/Unclassified
Sulfur Dioxide	Attainment/Unclassified	Attainment
PM ₁₀	Attainment	Nonattainment
PM _{2.5}	Nonattainment	Nonattainment
Lead	No designation/classification	Not listed

Notes:

Source: SJVAPCD (San Joaquin Valley Air Pollution Control District), 2022. Ambient Air Quality Standards & Valley Attainment Status. Accessed February 4, 2022. Available at: <https://www.valleyair.org/ajinfo/attainment.htm>.

- a. Effective June 15, 2005, the U.S. Environmental Protection Agency (USEPA) revoked the federal 1-hour ozone standard, including associated designations and classifications. USEPA had previously classified the San Joaquin Valley Air Basin (SJVAB) as extreme nonattainment for this standard. USEPA approved the 2004 Extreme Ozone Attainment Demonstration Plan on March 8, 2010 (effective April 7, 2010). Many applicable requirements for extreme 1-hour ozone nonattainment areas continue to apply to the SJVAB.

PM_{2.5}: particulate matter less than 2.5 micrometers in diameter

PM₁₀: particulate matter less than 10 micrometers in diameter

Table 6
Typical Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
-	110	Rock Band
Jet flyover at 1,000 feet		-
-	100	-
Gas lawnmower at 3 feet		-
-	90	-
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet
-	80	-
Noisy urban area, daytime		-
Gas lawnmower at 100 feet	70	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	60	-
-		Larger business office
Quiet urban daytime	50	Dishwasher in next room
-		-
Quiet urban nighttime	40	Theater, larger conference room (background)
Quiet suburban nighttime		-
-	30	Library
Quiet rural nighttime		Bedroom at night, concert hall (background)
-	20	-
-		Broadcast/recording studio

Notes:

Source: California Department of Transportation, 2013. *Transportation and Construction Vibration Guidance Manual*. September 2013.
dBA: A-weighted decibel

Table 7
Summary of Noise Measurements

Site Location	Date	Time Started	Measurement Duration	L _{eq}	L _{max}	L _{min}	L ₂	L ₈	L ₂₅	L ₅₀
STNM1	April 1, 2021	4:25 p.m.	1 hour	52	74	40	59	55	50	47
STNM2	April 1, 2021	3:17 p.m.	1 hour	61	79	46	67	64	61	59
STNM3	April 1, 2021	2:07 p.m.	1 hour	64	86	44	64	58	56	53
STNM4	April 1, 2021	12:34 p.m.	1 hour	48	62	37	56	52	46	44
STNM5	April 1, 2021	11:18 a.m.	1 hour	62	90	39	71	66	54	47
STNM6	April 1, 2021	9:48 a.m.	1 hour	49	87	42	53	51	49	47
LTNM1	April 1–2, 2021	10:00 a.m.	24 hours	55	87	59	56	55	53	52
LTNM2	April 2–3, 2021	12:08 a.m.	24 hours	55	73	59	56	55	54	54

Notes:

L₂: percentile-exceeded noise level that is equaled or exceeded by a fluctuating sound level 2% of a stated time period

L₂₅: percentile-exceeded noise level that is equaled or exceeded by a fluctuating sound level 25% of a stated time period

L₅₀: sound level that is equaled or exceeded by a fluctuating sound level 50% of a stated time period

L₈: percentile-exceeded noise level that is equaled or exceeded by a fluctuating sound level 8% of a stated time period

L_{eq}: equivalent continuous noise level

L_{max}: maximum sound level

L_{min}: minimum sound level

Table 8
Project Vicinity Landfills

Landfill	Remaining Capacity	Waste Type
Forward Landfill	Unit 1: 22,100,000 cubic yards (reported December 31, 2012) Unit 3: 40,031,058 cubic yards (reported June 1, 2002)	Agricultural, asbestos, friable, ash, construction/ demolition, contaminated soil, green materials, industrial, mixed municipal, sludge (biosolids), tires, shreds
Foothill Sanitary Landfill	125,000,000 cubic yards (reported June 10, 2010)	Agricultural, construction/demolition, dead animals, industrial, mixed municipal, tires, wood waste
North County Landfill & Recycling Center	35,400,000 cubic yards (reported December 31, 2009)	Construction/demolition, industrial, mixed municipal, tires, other designated, agricultural, metals, wood waste

Note:

Source: CalRecycle SWIS (California Department of Resources Recycling and Recovery Solid Waste Information System), 2021. Entries for Forward Landfill, Foothill Sanitary Landfill, and North County Landfill & Recycling Center. Accessed March 23, 2021. Available at: <https://www2.calrecycle.ca.gov/SolidWaste/Site/Search>.

Table 9
Census Tracts and Block Groups Intersecting the 0.5-Mile Study Area

Census Tract	Block Group
7	4
8.01	1
	2
	3
9	2
	5
39	1
	2

Table 10
Minority Populations in Study Area Block Groups

Census Area		Total Population	Total Minority	Percent of Population Minority
Reference Populations				
San Joaquin County		742,603	506,094	68%
California		39,283,497	24,678,185	63%
Block Groups Intersecting Study Area				
Tract 7	Block Group 4	1,529	1,325	87%
Tract 8.01	Block Group 1	1,769	1,722	97%
	Block Group 2	3,955	3,775	95%
	Block Group 3	1,900	1,839	97%
Tract 9	Block Group 2	1,280	1,024	80%
	Block Group 5	1,396	1,354	97%
Tract 39	Block Group 1	908	647	71%
	Block Group 2	610	431	71%

Notes:

Source: American Community Survey, 2019. U.S. Census Bureau 2015-2019 American Community Survey 5-Year Estimates.


 Block group with 74.8% total minority population percentage or greater (10% greater than San Joaquin County's minority population percentage)

Table 11
Low-Income Populations in Study Area Block Groups

Census Area		Total Population	Number of Low-Income People	Percent of Population Low Income
Reference Populations				
San Joaquin County		726,994	258,771	36%
California		38,535,926	11,930,261	31%
Block Groups Intersecting Study Area				
Tract 7	Block Group 4	1,459	1,188	81%
Tract 8.01	Block Group 1	1,769	1,153	65%
	Block Group 2	3,947	2,049	52%
	Block Group 3	1,878	743	40%
Tract 9	Block Group 2	1,261	758	60%
	Block Group 5	1,396	1,251	90%
Tract 39	Block Group 1	874	647	74%
	Block Group 2	610	192	31%

Notes:

Source: American Community Survey, 2019. U.S. Census Bureau 2015-2019 American Community Survey 5-Year Estimates.


 Block group with "low-income population" due to total low-income percentage greater than San Joaquin County's low-income percentage

Table 12
CalEnviroScreen 4.0 Results by Census Tract

Census Tract	Overall Percentile¹
7	100
8.01	99
9	97
39	93

Notes:

Source: California Office of Environmental Health Hazard Assessment, 2021. CalEnviroScreen 4.0. October 20, 2021. Available at: <https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40>.

1. The results range from 0 to 100 and represent the percentile ranking of each census tract relative to other census tracts in California.

Table 13
Conservative Estimates of Attenuated Underwater Noise from the Proposed Action

Pile Diameter and Type	Peak	SEL (Single Strike)	RMS	Reference Distance	Installation Details
72-inch steel piles	206 dB	176 dB	189 dB	10 meters	Up to 6 piles; 0.25 pile per day; 1,250 strikes per day

Notes:

Source sounds are from Caltrans 2020 Table I.2-1a steel shell 72-inch-diameter piles, Antioch, California.

A bubble curtain or similar attenuation method is assumed to be used as was used in the source sound example.

Installation details are estimated based on input from the project engineers (Higgins 2021) and past pile installation details from similar Port projects (Moran 2021).

Caltrans (California Department of Transportation), 2020. *Technical Guidance for the Assessment of Hydroacoustic Effects of Pile Driving on Fish: 2020 Update*. October 2020. California Department of Transportation. Report No. CTHWANP-RT-20-365.01.04. October 2020.

Moran, Kevin (Dillon & Murphy Engineering), 2021. Personal communication with Sarah Montgomery (Anchor QEA). July 30, 2021.

Higgins, Mike (HDR), 2021. Personal communication with Sarah Montgomery (Anchor QEA). July 30, 2021.

dB: decibel

RMS: root-mean-square

SEL: sound exposure level

Table 14
Attenuation Distances to Interim Injury Criteria for Fish

Interim Criteria	Sound Threshold	Attenuation Distance to Sound Threshold (Modeled)
Peak	206 dB Peak	10 meters
cSEL, fish greater than 2 grams	187 dB cSEL	214 meters
cSEL, fish less than 2 grams	183 dB cSEL	396 meters

Notes:

Source: California Department of Transportation, 2020. *Technical Guidance for the Assessment of Hydroacoustic Effects of Pile Driving on Fish: 2020 Update*. October 2020. California Department of Transportation. Report No. CTHWANP-RT-20-365.01.04. October 2020.

Sound impacts are effectively eliminated when sound waves encounter a bend in the river; therefore, the attenuation distances would be less than shown in Table 14 in directions from the source sound where the riverbank is encountered before the attenuation distance is reached.

cSEL: cumulative sound exposure level

dB: decibel

Table 15
General Conformity *de minimis* Thresholds for the San Joaquin Valley Air Basin

Criteria Pollutants and Quantified Precursors	SJVAB Attainment Status Designation	<i>de minimis</i> Threshold (tpy)
NO _x	Attainment/Unclassified	100
Ozone:		--
NO _x	Nonattainment/Extreme	10
VOC		10
CO	Attainment/Unclassified	100
PM ₁₀	Attainment	100
PM _{2.5} :		--
SO _x	Nonattainment/Serious	70
NO _x		70
VOC		70
Directly Emitted PM _{2.5}		70

Notes:

Source: 40 CFR §93.153(b)(1), 2021

CO: carbon monoxide

NO_x: nitrogen oxidesPM_{2.5}: particulate matter less than 2.5 micrometers in diameterPM₁₀: particulate matter less than 10 micrometers in diameter

SJVAB: San Joaquin Valley Air Basin

SO_x: sulfur oxides

tpy: tons per year

VOC: volatile organic compound

Table 16
Construction Total Emissions

Pollutant	2023	2024	2025	Most Stringent Conformity de minimis Threshold (tpy)	Above Threshold?
NO _x	0.010	1.7	0.49	10 (as an ozone precursor)	No
VOC	0.34	0.21	0.049	10 (as an ozone precursor)	No
CO	2.8	1.9	0.42	100 (maintenance)	No
SO _x	0.010	0.0056	0.0017	70 (as a PM _{2.5} precursor)	No
PM ₁₀	0.26	0.15	0.036	100 (maintenance)	No
PM _{2.5}	0.13	0.079	0.020	70 (nonattainment/serious)	No

Notes:

CO: carbon monoxide

NO_x: nitrogen oxides

PM_{2.5}: particulate matter less than 2.5 micrometers in diameter

PM₁₀: particulate matter less than 10 micrometers in diameter

SJVAB: San Joaquin Valley Air Basin

SO_x: sulfur oxides

tpy: tons per year

VOC: volatile organic compound

Table 17
Operational Emissions

Scenario	Engine Type	Engine Mode	CAP Emissions (tons per year)					
			VOC	NO _x	PM ₁₀	PM _{2.5}	CO	SO _x
2026 Conditions without Proposed Action	Class I Mainline Carriers	Running	1.24	29	0.67	0.62	7.1	0.026
		Idling	0.084	2.0	0.045	0.042	0.048	1.7E-03
	Class III Switchers	Running	0.70	11	0.38	0.35	2.9	0.012
		Idling	0.030	0.46	0.016	0.015	0.031	5.4E-04
	<i>Total</i>		<i>2.0</i>	<i>42</i>	<i>1.11</i>	<i>1.02</i>	<i>10.6</i>	<i>0.040</i>
2026 Conditions with Proposed Action	Class I Mainline Carriers	Running	1.63	39	0.88	0.81	9.3	0.034
		Idling	0.047	1.12	0.025	0.023	0.27	9.8E-04
	Class III Switchers	Running	0.76	12	0.41	0.38	3.1	0.013
		Idling	0.016	0.25	0.0089	0.0081	0.067	2.9E-04
	<i>Total</i>		<i>2.5</i>	<i>52</i>	<i>1.33</i>	<i>1.22</i>	<i>12.8</i>	<i>0.049</i>
Net Change	Class I Mainline Carriers	Running	0.39	9.3	0.21	0.20	2.3	0.0082
		Idling	-0.037	-0.86	-0.020	-0.018	-0.21	-7.6E-04
	Class III Switchers	Running	0.069	1.0	0.037	0.034	0.28	0.0012
		Idling	-0.014	-0.21	-0.0076	-0.0070	-0.058	-2.5E-04
	<i>Total</i>		<i>0.42</i>	<i>9.3</i>	<i>0.22</i>	<i>0.20</i>	<i>2.3</i>	<i>0.0084</i>
Threshold			10	10	100	70	100	70
Significant?			No	No	No	No	No	No

Note:

CAP: climate action plan

CO: carbon monoxide

NO_x: nitrogen oxides

PM_{2.5}: particulate matter less than 2.5 micrometers in diameter

PM₁₀: particulate matter less than 10 micrometers in diameter

SO_x: sulfur oxides

Table 18
Annual Construction Greenhouse Gas Emissions

Year	Construction Project	Construction Phase	CO ₂ e (metric tons per year)
2023	Rail Bridge Replacement	Track LD01 Construction	98
	Second Lead Track	Earthwork	351
	McCloy Rail Classification Yard	Earthwork	239
	Total		689
2024	Rail Bridge Replacement	Track LD01 Construction	58
	Second Lead Track	Track Removal and Reconnection	145
	McCloy Rail Classification Yard	Earthwork and Track Removal and Reconnection	188
	Total		392
2025	Rail Bridge Replacement	Track LD02 Construction	144

Notes:

Emissions may not precisely sum, due to rounding.

Rail emissions reflect switcher and line-haul locomotives.

CO₂e: carbon dioxide equivalent

Table 19
Operational Greenhouse Gas Emissions

Scenario	Engine Type	Engine Mode	CO ₂ e (metric tons per year)
2026 Conditions without Proposed Action	Class I Mainline Carriers	Running	2,489
		Idling	168
	Class III Switchers	Running	1,188
		Idling	52
	Total		
2026 Conditions with Proposed Action	Class I Mainline Carriers	Running	3,282
		Idling	95
	Class III Switchers	Running	1,305
		Idling	28
	Total		
Net Change	Class I Mainline Carriers	Running	793
		Idling	-73
	Class III Switchers	Running	117
		Idling	-24
Total			813

Notes:

Rail emissions reflect switcher and line-haul locomotives.

CO₂e: carbon dioxide equivalent

Table 20
Construction Equipment Sound Levels

Equipment Description	Sound Level at 50 feet (dBA)	Acoustical Use Factor (%)
Backhoe	78	40
Compactor (ground)	83	20
Compressor (air)	78	40
Concrete Saw	90	20
Crane	81	16
Dozer	82	40
Drill Rig Truck	79	20
Dump Truck	76	40
Excavator	81	40
Forklift ^{1,2}	61	50
Front End Loader	79	40
Generator	81	50
Grader	85	40
Hydra Break Ram	90	10
Lift	75	20
Impact Pile Driver	101	20
Paver	77	50
Pumps	81	50
Roller	80	20
Tractor	84	40
Welder	74	40

Notes:

Source: Federal Highway Administration, 2006. *Construction Noise Handbook*. Available at:

http://www.fhwa.dot.gov/environment/noise/construction_noise/handbook/.

1. Strautins, C. 2014. "Warehouse & Forklift Workplace Noise Levels." Noise Testing. Accessed March 9, 2022. Available at:

<http://www.noisetesting.info/blog/warehouse-forklift-workplace-noise-levels/>.

2. Data provided L_{eq} as measured at the operator. Sound level at 50 feet is calculated using inverse square law.

dBa: A-weighted decibel

Table 21
Groundborne Vibration Impact Criteria

Land Use Category	Groundborne Vibration Impact Levels (VdB re 1 micro-inch/second)		
	Frequent Events ¹	Occasional Events ²	Infrequent Events ³
Category 1: Buildings where vibration would interfere with interior operations	65 VdB ⁴	65 VdB ⁴	65 VdB ⁴
Category 2: Residences and buildings where people normally sleep	72 VdB	75 VdB	80 VdB
Category 3: Institutional land uses with primarily daytime uses	75 VdB	78 VdB	83 VdB

Notes:

Source: FTA (Federal Transit Administration), 2018. *Transit Noise and Vibration Impact Assessment Manual*. FTA Report No. 0123. September 2018. Accessed February 2, 2022. Available at: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf.

1. "Frequent Events" are defined as more than 70 vibration events of the same source per day. Most rapid transit Actions are in this category.
2. "Occasional Events" are defined as between 30 and 70 vibration events of the same source per day (most commuter trunk lines).
3. "Infrequent Events" are defined as fewer than 30 vibration events of the same kind per day. This category includes most commuter rail branch lines.
4. Approximate threshold of perception for most people.

VdB: vibration decibel

Table 22
Construction Noise Analysis Results Summary

Construction Phase	Pile Driving Included? (Yes/No)	Calculated 8-Hour L_{eq} (dBA)	Calculated 30-Day L_{dn} (dBA)
Rail Bridge Replacement			
Rail Bridge Replacement	Yes	60	63
LLDT Construction			
Underpass Construction at 25 Feet	Yes	86	82
Underpass Construction at 270 Feet	Yes	85	81
Earthwork and Trackwork at 25 Feet	No	84	80
Earthwork and Trackwork at 270 Feet	No	70	68
Earthwork and Track Construction Port	No	69	67
Construction of McCloy Rail Classification Yard			
Port Yard Construction	No	55	63

Notes:

dBa: A-weighted decibel

L_{dn} : day/night average sound level

L_{eq} : equivalent continuous noise level

Table 23
Related Present and Future Projects Considered in the Cumulative Impact Analysis

Reference Number	Action Name	Location	Action Description	Action Status
1	Port of Stockton West Complex Development Plan: Marine Terminal Development	Port of Stockton	Marine terminal-related development associated with the Port's West Complex	In progress
2	Port of Stockton West Complex Development Plan: Commercial and Industrial Park Development	Port of Stockton	Upland commercial development associated with the Port's West Complex	In progress
3	Port of Stockton West Complex Development Plan: Infrastructure Improvements	Port of Stockton	Industrial development associated with the Port's West Complex	In progress
4	State Route 4 Crosstown Freeway Extension	City of Stockton	Extension of existing ramps with 1 mile of elevated structure; minor widening and realignment of Navy Drive between Fresno Avenue and BNSF underpass	Complete
5	Navy Drive Widening	Port of Stockton	Widening Navy Drive to accommodate traffic changes from SR-4 Crosstown Freeway Ramp Extension Project	Complete
6	Daggett Road Grade Separation	Port of Stockton	Construction of a new bridge over the BNSF railroad tracks on Daggett Road (now known as the Port of Stockton Expressway)	Complete
7	McCloy Avenue Extension	Port of Stockton	Extension of McCloy Avenue on the Port's West Complex	Complete
8	Targa Stockton Terminal	Port of Stockton	Construction and operation of a tank farm/terminal facility on approximately 19 acres within the rail circle that encompasses the Pacific Ethanol production facility, use of Berth 9 at the Port, and an existing public right of way for a product pipeline for transferring fuels	In progress
9	SATCO Marine Terminal	Port of Stockton	Construction and operation of a sulfuric acid facility on the East Complex	In progress
10	Nautilus Data Technology Data Storage Facility	Port of Stockton	Construction and operation of a waterborne data center facility at the West Complex	In progress

Reference Number	Action Name	Location	Action Description	Action Status
11	San Francisco Bay to Stockton (John F. Baldwin and Stockton Ship Channels) Navigation Improvement	Stockton Deep Water Ship Channel	Deepening the Stockton DWSC by 5 to 7 feet to improve maritime commerce efficiencies	Planning underway
12	Twitchell and Mandeville Island Dredged Material Placement Sites	Port of Stockton	Construction and operation of new dredge material placement sites for maintenance dredged sediment	Complete
13	ACE Rail Maintenance Facility Improvements	San Joaquin Regional Rail Commission	Installation of Wayside Power at the ACE Rail Maintenance Facility to reduce idling time for the diesel locomotives, thereby reducing emissions and noise nuisance concerns raised by nearby sensitive receptors	Complete
14	Open Window Master Development Plan	City of Stockton	Master Development Plan for downtown Stockton	Approved
15	Miner Avenue Complete Streets Road Plan	City of Stockton	Lane reduction from four to two lanes and the addition of Class II bicycle lanes throughout the project area and other traffic improvements	In progress
16	Contanda Port Road A Facility Expansion	Port of Stockton	Expanding an existing liquid bulk terminal by removing 14 existing ASTs and replacing them with five new ASTs of greater capacity	Complete
17	Contanda Renewable Diesel Bulk Liquid Terminal Development	Port of Stockton	Development of a new renewable diesel bulk liquid terminal at the Port. As part of the project, 16 ASTs of varying capacity would be built at a vacant parcel at the Port. Project would come into the Port via vessels and rail and leave via truck.	Complete
18	Eco-Energy Liquid Bulk Receiving Terminal Development	Port of Stockton	Construction and operation of a 10-acre liquid bulk receiving terminal, which would be operated only using unit trains (replacing existing manifest train movements at NuStar). A pipeline would connect the Eco-Energy Liquid Bulk Receiving Terminal with the NuStar terminal.	In progress
19	NuStar Ethanol Infrastructure Upgrades	Port of Stockton	On-terminal infrastructure upgrades to accommodate Eco-Energy supplied ethanol	Complete
20	NuStar Domestic Renewable Diesel	Port of Stockton	On-terminal infrastructure upgrades to accommodate domestic renewable diesel deliveries	Complete

Reference Number	Action Name	Location	Action Description	Action Status
21	NuStar Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS) Development and Vessel Service	Port of Stockton	Dock upgrades to comply with MOTEMS standards and support a new vessel service for renewable diesel deliveries	Complete
22	CVAG Bulk Whole Cottonseed Transloading Facility	Port of Stockton	A new transloading facility to receive whole cottonseed by rail and transport it out by truck	Complete
23	Denmar Natural Soda Ash Terminal	Port of Stockton	A new terminal to receive natural soda ash by rail and transport it out by ship	Permitting in progress
24	TC NO. CAL. Development Warehousing and Distribution Facility Project	Port of Stockton	Development of a new distribution warehouse and remediation of existing impacted soils	Environmental review in progress
25	Lehigh Cement West (formerly Lehigh Southwest) Stockton Terminal	Port of Stockton	Redevelopment of existing bulk cementitious material receiving and distribution terminal at the Port to improve operational efficiency and accommodate additional capacity.	Environmental review in progress
26	Proposed Project			