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October 2026
Nevada Cement Company LLC Stockton Terminal Modernization Project
State Clearinghouse Number: 2024100490

ANCHOR QEA

Draft Environmental Impact Report

Prepared for Port of Stockton

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Prepared for
Port of Stockton
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TABLE OF CONTENTS

Executive Summary **ES-1**

Proposed Project 1
Background 4
Project Objectives 4
Summary of Project Alternatives 5
No Project Alternative 5
Berth 2 Improvements Alternative 5
Public Scoping and Outreach 6
Availability of the Draft Environmental Impact Report 6
Summary of Impacts and Mitigation 7
Summary of Project-Level Impacts 7
Summary of Cumulative Impacts 7

1 Introduction **1**

1.1 Intended Use of This Environmental Impact Report 1
1.2 California Environmental Quality Act Process 1
1.3 Agency Roles and Responsibilities 2
1.4 Public Participation, Consultation, and Coordination 3
1.5 Notice of Preparation 3
1.5.1 Public Scoping and Agency Coordination 4
1.5.2 Regulatory Guidance Related to Public Outreach and Coordination 7
1.6 Incorporation by Reference 8
1.6.1 Lehigh Southwest Stockton Terminal Project Draft EIR 8
1.6.2 Envision Stockton 2040 General Plan 8
1.6.3 City of Stockton Municipal Code 8
1.6.4 City of Stockton Climate Action Plan 9
1.7 Scope of This Environmental Impact Report 9
1.8 Draft Environmental Impact Report Organization 11

2 Project Description **13**

2.1 Proposed Project Overview 13
2.1.1 Project Background 17
2.1.2 Project Need and Objectives 17
2.2 Environmental Setting 18
2.2.1 California Environmental Quality Act Baseline 18

2.2.2 Regional Setting 18
2.2.3 Project Setting 19
2.3 Existing Terminal Operations 24
2.3.1 Existing Throughput 26
2.3.2 Existing Operational Constraints 27
2.4 Proposed Project Construction 28
2.4.1 Demolition and Removal Activities 30
2.4.2 Berth 3/4 Rehabilitation 34
2.4.3 New Ship Unloader and Conveyance System Installation 36
2.4.4 Upland Facility Improvements 38
2.4.5 Construction Schedule 48
2.5 Operations 50
2.5.1 Ship Unloading Operations 50
2.5.2 Material Transfer and Storage 50
2.5.3 Operating Schedule 51
2.5.4 Proposed Project Throughputs 51
2.6 Proposed Alternatives 53
2.6.1 No Project Alternative 54
2.6.2 Berth 2 Improvements Alternative 54

3 Environmental Impact Analysis 56

3.1 Aesthetics 58
3.1.1 Environmental Setting 58
3.1.2 Applicable Regulations 62
3.1.3 Environmental Impacts and Mitigation Measures 63
3.2 Air Quality 67
3.2.1 Environmental Setting 67
3.2.2 Applicable Regulations 74
3.2.3 Environmental Impacts and Mitigation Measures 82
3.3 Biological Resources 109
3.3.1 Environmental Setting 109
3.3.2 Applicable Regulations 119
3.3.3 Environmental Impacts and Mitigation Measures 122
3.4 Cultural Resources 134
3.4.1 Environmental Setting 134
3.4.2 Applicable Regulations 137

3.4.3 Environmental Impacts and Mitigation Measures 140
3.5 Energy 147
3.5.1 Environmental Setting 147
3.5.2 Applicable Regulations 148
3.5.3 Environmental Impacts and Mitigation Measures 151
3.6 Geology and Soils 155
3.6.1 Environmental Setting 155
3.6.2 Applicable Regulations 160
3.6.3 Environmental Impacts and Mitigation Measures 161
3.7 Greenhouse Gas Emissions 167
3.7.1 Environmental Setting 167
3.7.2 Applicable Regulations 168
3.7.3 Environmental Impacts and Mitigation Measures 176
3.8 Hazards and Hazardous Materials 189
3.8.1 Environmental Setting 189
3.8.2 Applicable Regulations 192
3.8.3 Environmental Impacts and Mitigation Measures 197
3.9 Hydrology and Water Quality 204
3.9.1 Environmental Setting 205
3.9.2 Applicable Regulations 207
3.9.3 Environmental Impacts and Mitigation Measures 210
3.10 Land Use and Planning 217
3.10.1 Environmental Setting 217
3.10.2 Applicable Regulations 217
3.10.3 Environmental Impacts and Mitigation Measures 218
3.11 Noise 221
3.11.1 Environmental Setting 221
3.11.2 Applicable Regulations 225
3.11.3 Environmental Impacts and Mitigation Measures 228
3.12 Transportation 242
3.12.1 Environmental Setting 242
3.12.2 Applicable Regulations 248
3.12.3 Environmental Impacts and Mitigation Measures 252
3.13 Tribal Cultural Resources 265
3.13.1 Environmental Setting 265

3.13.2 Applicable Regulations....266
3.13.3 Environmental Impacts and Mitigation Measures....267

4 Cumulative Impacts....270
4.1 Requirements for Cumulative Impact Analysis....270
4.2 Projects Considered Under Cumulative Analysis....271
4.2.1 Past History of the Port....271
4.2.2 Present and Future Projects....272
4.3 Analysis of Cumulative Impacts....278
4.3.1 Cumulative Impacts for Unaffected Environmental Resource Areas....278
4.3.2 Cumulative Impacts for Affected Environmental Resource Areas....279

5 Other Required Analyses....296
5.1 Unavoidable Significant Impacts....296
5.2 Significant Irreversible Environmental Changes....296
5.3 Growth-Inducing Impacts....297
5.3.1 Direct Impacts....297
5.3.2 Indirect Impacts....298

6 Alternatives....299
6.1 Requirements to Analyze Alternatives....299
6.2 Alternatives Considered but Dismissed from Further Evaluation....300
6.2.1 Reduced Rail Loading and Storage Alternative....300
6.2.2 Transit Access Alternative....301
6.2.3 Reduced Throughput Alternative....302
6.3 Alternative 1: No Project Alternative....303
6.4 Alternative 2: Berth 2 Improvements Alternative....307
6.5 Comparison of Alternatives....312
6.6 Environmentally Superior Alternative....313

7 List of Preparers....315
Port of Stockton....315
Anchor QEA....315
Subcontractors....315

8 References....316

TABLES

Table ES-1	Summary of Proposed Project Impacts and Mitigation	9
Table ES-2	Summary of Mitigation Measures	16
Table 1	Regulatory Agencies and Authority	2
Table 2	Summary of Scoping Comments	5
Table 3	Storage Capacity	25
Table 4	Baseline (2023) Modal Moves and Volumes (Annual) Nevada Cement	27
Table 5	Construction Schedule	49
Table 6	Projected Throughput Volumes	52
Table 7	Transportation Modes	53
Table 8	National and California Ambient Air Quality Standards	69
Table 9	San Joaquin Valley Air Pollution Control District Attainment Status	71
Table 10	Maximum Pollutant Concentrations Measured at the Stockton-University Park Monitoring Station	72
Table 11	Toxic Air Contaminant Health Effects	73
Table 12	Air Districts Criteria Pollutant Thresholds	83
Table 13	Proposed Project Construction Annual Emissions (Unmitigated) as Compared to SJVAPCD Thresholds (tons per year)	90
Table 14	Baseline (2023) and Proposed Project Operational Annual Emissions (2046), SJVAPCD, Unmitigated (tons per year)	91
Table 15	Baseline (2023) and Proposed Project Operational Annual Emissions (2046), SMAQMD, Unmitigated (tons per year)	93
Table 16	Baseline (2023) and Proposed Project Operational Average Daily Emissions (2046), SMAQMD Unmitigated (pounds per day)	94
Table 17	Baseline (2023) and Proposed Project Operational Annual Emissions (2046), BAAD, Unmitigated (tons per year)	94
Table 18	Baseline (2023) and Proposed Project Operational Average Daily Emissions (2046), BAAD Unmitigated (pounds per day)	95
Table 19	Proposed Project Construction Maximum Daily Emissions (Unmitigated) as Compared to SJVAPCD Screening Levels (pounds per day)	96
Table 20	Baseline (2023) and Proposed Project Operational Maximum Daily Emissions (2046) as Compared to SJVAPCD Screening Levels, Unmitigated (pounds per day)	97
Table 21	Maximum Pollutant Concentrations Associated with Proposed Project Operation Compared to the AAQS	99
Table 22	Maximum Pollutant Concentrations Associated with Proposed Project Operation, Compared to the SILs	100
Table 23	Proposed Project Construction Annual Emissions, SJVAPCD, Mitigated (Tons per Year)	103

Table 24 Maximum Health Risk Values Associated with Proposed Project Construction and Operation (Unmitigated) 107
Table 25 Identified Buildings and Structures Located in the Project Area 142
Table 26 Existing and Proposed Energy Usage Estimates at the Project Site 153
Table 27 Proposed Project Greenhouse Gas Emissions in CO_2e (Unmitigated) 181
Table 28 Consistency with Port of Stockton Plan 187
Table 29 Existing Ambient Noise Measurements in Project Vicinity 224
Table 30 Maximum Allowable Noise Exposure by Land Use Per City of Stockton 2040 General Plan (L_{dn}) 228
Table 31 Proposed Project Construction Equipment 231
Table 32 Construction Daytime Noise Limits and Exceedances, Unmitigated 233
Table 33 Summary of Operational Noise Analysis 235
Table 34 Construction Daytime Noise Limits and Exceedances, Mitigated 239
Table 35 Vibration Source Levels for Construction Equipment 241
Table 36 Baseline Volume 252
Table 37 Trip Generation – Opening Year (2031) 256
Table 38 Trip Generation – Cumulative Year (2045) 256
Table 39 Proposed Project-Generated VMT 262
Table 40 Proposed Project Effect on VMT 262
Table 41 Related Present and Future Projects Considered in the Cumulative Impact Analysis 273
Table 42 Alternative 2 Expected Maximum Throughput Compared to Existing Levels (Annual) 308
Table 43 Comparison of Potential Impacts from Proposed Project and Alternatives (with Incorporation of Mitigation) 313

FIGURES

Figure ES-1 Vicinity Map 3
Figure 1 Vicinity Map 14
Figure 2 Existing Conditions and Elements 15
Figure 3 Existing and Proposed Leasehold Boundary 16
Figure 4 Proposed Project – Site Plan 29
Figure 5 Demolition Plan 31
Figure 6 Ground Disturbance Areas 33
Figure 7 Berth 3/4 Ship Unloader Plan and Cross-Section 37
Figure 8 Dock to Dome Conveyance and Storage 40

Figure 9 Existing Terminal Railcar Operations 42
Figure 10 Proposed Terminal Railcar Flow 43
Figure 11 Laydown and Staging Areas 46
Figure 12 Local and Regional Roadways 245
Figure 13 Local and Regional Railways 246
Figure 14 Regional Railways 247
Figure 15 Project Trips by Roadway 257
Figure 16 Cumulative Projects 277

PHOTOGRAPHS

Photograph 1 Existing Berth 2 Dock Structure 20
Photograph 2 Existing Ship Unloader and Conveyor 21
Photograph 3 Berth 3/4 Showing *Golden Arrow* and Equipment 22
Photograph 4 Existing Cementitious Material Storage Bunker 23
Photograph 5 Existing Railcar Loadout 23
Photograph 6 Existing Truck Loading Station 24
Photograph 7 Nevada Cement Company Office Building Rail Operations 24
Photograph 8 Dust-Free Railcar Loading with Telescoping Loading Spout Example 44
Photograph 9 View of Small Walnut Trees on Shoreline Across from Existing Wooden Rail Trestle 60
Photograph 10 View of Nevada Cement terminal from Harbor Street (Southeast of the Project Site) 60
Photograph 11 View of Nevada Cement terminal from Port Road A (Southwest of the Project Site) 61
Photograph 12 View of Nevada Cement terminal from San Juan and Field Avenues (North of the Project Site) 61

APPENDICES

Appendix A Notice of Preparation/Initial Study
Appendix B Comments Received on the Notice of Preparation/Initial Study
Appendix C Air Quality, Health Risk Assessment, and Greenhouse Gases
Appendix D Special-Status Species Potentially Present in the Study Area
Appendix E CNPS Plants with Potential to Occur in the Study Area
Appendix F Biological Assessment

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Appendix G Department of Parks and Recreation Forms
Appendix H Supporting Noise Calculations
Appendix I Transportation Study

ABBREVIATIONS

µg/m^3	microgram per cubic meter
2040 General Plan	*Envision Stockton 2040 General Plan*
AAQA	ambient air quality analysis
AAQS	ambient air quality standards
AB	Assembly Bill
ACF	Advanced Clean Fleets
ACT	Advanced Clean Trucks
ADL	aerially deposited lead
AES	Aesthetic
ARB	California Air Resources Board
AST	aboveground storage tank
BAAD	Bay Area Air District
BACT	best available control technology
Basin Plan	Central Valley RWQCB's *Water Quality Control Plan for the Sacramento and San Joaquin River Basins*
BAU	business as usual
BIO	Biological Resources
BMP	best management practice
BNSF	BNSF Railway
BPS	Best Performance Standard
Btu	British thermal unit
CAA	Clean Air Act
CAAQS	California ambient air quality standards
Cal/OSHA	California Division of Occupational Safety and Health
CalEEMod	California Emissions Estimator Model
CALGreen	California Green Building Standards Code
Caltrans	California Department of Transportation
CA MUTCD	California Manual on Uniform Traffic Control Devices
CAP	Climate Action Plan
CAPP	Community Air Protection Program
CCAA	California Clean Air Act
CCAAP	Comprehensive Climate Action and Adaptation Plan
CCAP	Climate Change Action Plan
CCR	California Code of Regulations
CCTC	Central California Traction Company
CDFW	California Department of Fish and Wildlife

CEC	California Energy Commission
CERP	community emissions reduction programs
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	*Code of Federal Regulations*
CGS	California Geological Survey
CH_4	methane
CHRIS	California Historical Resources Information System
City	City of Stockton
CNDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
cSEL	cumulative sound exposure level
CSLC	California State Lands Commission
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
dB	decibel
dBA	decibel, A-weighted
DEIR	Draft Environmental Impact Report
DOT	U.S. Department of Transportation
DPM	diesel particulate matter
DPS	distinct population segment
DSP	Port of Stockton *Storm Water Development Standards Plan*
DTSC	California Department of Toxic Substances Control
DWSC	Deep Water Ship Channel
DWT	deadweight ton
EAP	Emergency Action Plan
EFH	Essential Fish Habitat
EIR	Environmental Impact Report
EO	Executive Order
EOP	Emergency Operations Plan
EPCRA	Emergency Planning and Community Right-to-Know Act

ESA	Endangered Species Act
FAR	floor area ratio
Fed. Reg.	*Federal Register*
FEMA	Federal Emergency Management Agency
FGC	California Fish and Game Code
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FMWT	Fall Midwater Trawl
FTA	Federal Transit Administration
GGBFS	ground granulated blast furnace slag
GHG	greenhouse gas
GWh	gigawatt hours
GWP	global warming potential
HI	hazard index
Hot Spots Act	Air Toxics "Hot Spots" Information and Assessment Act
HRA	Health Risk Assessment
HSC	California Health and Safety Code
I-5	Interstate 5
I-80	Interstate 80
IDP	Inadvertent Discovery Plan
IG	Industrial, General
ITMM	incidental take minimization measure
kWh	kilowatt hour
LCFS	Low Carbon Fuel Standard
LCI	Governor's Office of Land Use and Climate Innovation
L_{dn}	day/night average sound level
L_{eq}	equivalent sound level
L_{max}	maximum sound level
L_{min}	minimum sound level
L_n	percentile-exceeded noise level
LOS	Level of Service
MBTA	Migratory Bird Treaty Act
MHHW	mean higher high water
MLLW	mean lower low water
MMPA	Marine Mammal Protection Act
MOTEMS	Marine Oil Terminal Engineering and Maintenance Standards
MRZ-1	Mineral Resource Zone-1

MS4	municipal separate storm sewer system
MT	metric ton
mty	metric ton per year
N_2O	nitrous oxide
NA	not applicable
NAAQS	national ambient air quality standards
NAHC	Native American Heritage Commission
Nevada Cement	Nevada Cement Company LLC
NHPA	National Historic Preservation Act
NHTSA	National Highway Traffic Safety Administration
NMFS	National Marine Fisheries Service
NO_2	nitrogen dioxide
NOP/IS	Notice of Preparation and Initial Study
NOx	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
O_3	ozone
Off-Road Diesel Regulation	Regulation for In-Use Off-Road Diesel-Fueled Fleets
OGV	oceangoing vessel
OPR	Office of Planning and Research
OPR Technical Advisory	*Technical Advisory on Evaluating Transportation Impacts in CEQA*
OSHA	Occupational Safety and Health Administration
PCB	polychlorinated biphenyl
PG&E	Pacific Gas & Electric Company
PM	particulate matter
PM_{10}	particulate matter less than 10 microns in diameter
$PM_{2.5}$	particulate matter less than 2.5 microns in diameter
Port	Port of Stockton
ppb	parts per billion
ppm	parts per million
PPV	peak particle velocity
PRC	California Public Resources Code
proposed project	Nevada Cement Company LLC Stockton Terminal Modernization Project
PSMP	Protected Species Monitoring Plan
PSU	practical salinity unit

PT	Port
PTO	Permit to Operate
RCNM	Roadway Construction Noise Model
RCRA	Resource Conservation and Recovery Act
ROG	reactive organic gases
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCAQMD	South Coast Air Quality Management District
SCM	supplementary cementitious material
SCS	Sustainable Communities Strategy
SDS	Safety Data Sheet
SFBAAB	San Francisco Bay Area Air Basin
SIL	Significant Impact Level
SIP	State Implementation Plan
SJCEHD	San Joaquin County Environmental Health Department
SJCOES	San Joaquin Office of Emergency Services
SJCOG	San Joaquin Council of Governments
SJMSCP	San Joaquin County Multi-Species Habitat Conservation and Open Space Plan
SJVAB	San Joaquin Valley Air Basin
SJVAPCD	San Joaquin Valley Air Pollution Control District
SLF	Sacred Lands File
SMAQMD	Sacramento Metro Air Quality Management District
SO_2	sulfur dioxide
SOx	oxides of sulfur
SR	State Route
SVAB	Sacramento Valley Air Basin
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
TDM	Transportation Demand Management
TIA	Transportation Impact Analysis
TIA Guidelines	Transportation Impact Analysis Guidelines
TMDL	Total Maximum Daily Load
UNZ	Unzoned
UP	Union Pacific Railroad

USACE	U.S. Army Corps of Engineers
USC	*United States Code*
USCG	U.S. Coast Guard
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
VERA	Voluntary Emission Reduction Agreement
VMT	vehicle miles traveled
VOC	volatile organic compound
WDR	Waste Discharge Requirements

Executive Summary

This Draft Environmental Impact Report (DEIR) has been prepared in compliance with the California Environmental Quality Act (CEQA) to assist the Port of Stockton (Port) in considering approval of the Nevada Cement Company LLC (Nevada Cement) Stockton Terminal Modernization Project (proposed project) in accordance with the CEQA Guidelines (14 California Code of Regulations [CCR] 15000 et seq.). The proposed project involves redeveloping the existing bulk cementitious materials receiving and distribution terminal to accommodate additional capacity and improve operational efficiency. Implementation of the proposed project would require a lease modification from the Port, which is a discretionary action subject to CEQA. The Port has principal responsibility for approving the proposed project and serves as the lead agency under CEQA (California Public Resources Code [PRC] 21000 et seq.) for preparation and certification of this DEIR.

The purpose of this DEIR is as follows: 1) describe the proposed project and its regulatory setting; 2) identify and evaluate potential environmental impacts associated with implementation of the proposed project; and 3) identify feasible mitigation measures and alternatives that would avoid or substantially lessen significant impacts.

Consistent with CEQA requirements, the Port distributed a Notice of Preparation and accompanying Initial Study (NOP/IS; Appendix A) on October 11, 2024, for a 30-day public review period ending on November 12, 2024, to inform agencies and interested parties that an Environmental Impact Report (EIR) would be prepared and to solicit input on the scope of environmental analysis. Comments received during the scoping process were considered in preparation of this DEIR and are included in Appendix B.

As identified in the NOP/IS, the proposed project is not expected to result in significant environmental impacts in several resource areas. Therefore, this DEIR focuses on environmental topics that have the potential to result in significant impacts, including aesthetics, air quality, biological resources, cultural resources, energy, geology and soils, greenhouse gases (GHG), hazards and hazardous materials, hydrology and water quality, land use, noise, transportation, and Tribal cultural resources.

Proposed Project

The proposed project involves modernizing an existing bulk cementitious material receiving and distribution terminal at the Nevada Cement marine terminal located at 205 Port Road 1 in Stockton, California (Figure ES-1). The project site includes Berth 2, Berth 3/4, and the terminal backland area. The proposed project also includes a lease modification with the Port to increase Nevada Cement's leasehold from approximately 4.92 acres to approximately 10.98 acres. The existing facility receives, stores, and distributes bulk cementitious materials; no processing or production occurs on site.

The existing terminal is aging, operationally constrained, and unable to efficiently accommodate modern vessel sizes and requires upgrades to improve efficiency and accommodate larger vessels. The current ship unloader is no longer adequate to fully access vessel holds, and the existing wooden rail trestle and berth track configuration cannot safely support full rail operations. Upland rail and truck loading systems are also inefficient.

The proposed project would redevelop the facility to improve efficiency and increase capacity. Improvements include installation of a new ship unloader; rehabilitation of Berth 3/4; rail improvements; installation of barge loading equipment; and upland facility improvements, including construction of a storage dome, modifications to truck and rail loading systems, minor piping modifications, and replacement of existing bunker dust collectors. These improvements would modernize operations and enhance material handling.

The Port prepared this DEIR using available technical information and considered alternatives to the proposed project. As required by CEQA, the Port must evaluate the information in this DEIR, including mitigation measures and feasible alternatives, prior to project approval.

Figure ES-1
Vicinity Map



Background

Concrete is a primary construction material used in commercial, industrial, infrastructure, and residential development and is composed of water, aggregate, and cementitious materials that act as the binding agent. Cementitious materials, including Portland cement and supplementary materials such as fly ash and ground granulated blast furnace slag (GGBFS), are in high demand in Northern California to support ongoing construction and infrastructure needs.

The Nevada Cement terminal has operated as a bulk cementitious material receiving and distribution terminal at the Port for more than 35 years, supplying the local Stockton area and the broader Northern California construction market. The facility functions as a transloading terminal and does not produce cement or concrete or handle aggregates. The terminal was previously owned and operated by Lehigh Hanson, later acquired by Martin Marietta Materials, and most recently acquired by Nevada Cement in 2023. A prior project at the site was evaluated in the 2020 *Lehigh Southwest Stockton Terminal Project Draft EIR* (Port 2020), which analyzed similar facility upgrades to improve operational efficiency and increase capacity.

Cementitious materials are transported in bulk via ships, barges, railcars, and trucks and are handled using enclosed systems to control moisture and dust emissions. At the terminal, materials are received by vessel, stored on site, and distributed by truck and rail. The existing infrastructure is outdated and undersized, limiting operational efficiency and the ability to accommodate larger vessels. The proposed project would modernize the terminal to improve efficiency, accommodate current vessel sizes, and maintain a reliable regional supply of cementitious materials.

Project Objectives

Pursuant to the CEQA Guidelines and 14 CCR 15124, a statement of the objectives sought by the proposed project must be provided as part of the project description in an EIR. The proposed project's goal is to modernize the existing terminal to maintain and enhance Nevada Cement's ability to meet customer demand in Northern California's cementitious materials market.

To accomplish this goal, the following key project objectives would be achieved:

- Improve and modernize the terminal to increase cementitious material throughput, up to existing permit limits, and meet regional demand for reliable cementitious materials in Northern California.
- Upgrade the terminal to improve operational efficiency, optimize power use, enhance environmental controls, and ensure safe and efficient handling of cementitious materials.
- Upgrade Berth 3/4 to support new ship unloading equipment, comply with current design standards, and extend the useful life of the berth structures.
- Maintain and continue terminal operations to support the ongoing distribution of cementitious materials to the regional market.

- Modify and extend the lease with the Port to support the proposed improvements.

Summary of Project Alternatives

The CEQA Guidelines (14 CCR 15126) require that a DEIR consider a range of reasonable and potentially feasible alternatives to the project or to the location of the project that would feasibly attain most of the basic project objectives but would avoid or substantially lessen any of the significant effects of the project. The alternatives considered in this DEIR include the following:

- **Alternative 1:** No Project Alternative
- **Alternative 2:** Berth 2 Improvements Alternative

A complete evaluation of these alternatives, including their ability to meet the objectives of the proposed project and their ability to avoid or substantially reduce significant environmental impacts, is provided in Section 6 of this DEIR and the Environmentally Superior Alternative is identified in Section 6 in accordance with CEQA Guidelines Section 15126.6.

No Project Alternative

The No Project Alternative, which is required by CEQA, represents what would reasonably be expected to occur in the foreseeable future if the proposed project were not approved. Under this alternative, the proposed terminal modernization would not occur, and no new equipment or infrastructure improvements would be implemented. Terminal operations would continue under existing conditions, and throughput could continue within existing permit limits; however, the facility would continue to operate with outdated and less efficient infrastructure. As the existing ship unloader approaches the end of its useful life, operations would likely become less efficient and could constrain the terminal's ability to meet regional demand over time.

Berth 2 Improvements Alternative

The Berth 2 Improvements Alternative would consist of dock improvements and equipment replacement and installation at Berth 2, with no upgrades at Berth 3/4. Construction and operational activities would be similar to those of the proposed project but confined to Berth 2, which would restrict unloading operations to that location. Construction would take Berth 2 out of service for an extended period, requiring Nevada Cement to rely more heavily on rail deliveries to maintain operations. Due to Berth 2's shorter length, large vessels would extend into the channel and could not be efficiently discharged. These constraints would reduce operational efficiency and increase fugitive dust emissions due to less efficient unloading operations.

Public Scoping and Outreach

The Port distributed the NOP/IS (Appendix A) for the proposed project on October 11, 2024, for a 30-day public review period ending on November 12, 2024. Consistent with CEQA Guidelines Sections 15082 and 15086, the NOP/IS was filed with the Governor's Office of Planning and Research and the San Joaquin County Clerk and distributed to responsible and trustee agencies as well as to other federal, state, and local agencies and Tribal governments for consultation. A total of 10 comment letters were received during the scoping period from agencies, organizations, and Tribal representatives, including the following:

- Restore the Delta
- San Joaquin County Environmental Health Department
- Native American Heritage Commission
- Sierra Club, Delta-Sierra Group, and Mother Lode Chapter
- Central Valley Regional Water Quality Control Board
- San Joaquin Valley Air Pollution Control District (SJVAPCD)
- California Department of Fish and Wildlife
- Machinists and Mechanics Lodge No. 2182
- Confederated Villages of Lisjan Nation
- Muwekma Ohlone Tribe of the San Francisco Bay Area

These comments were considered in the preparation of this DEIR. The comment letters received in response to the NOP/IS are included in Appendix B, and a summary of key issues raised is provided in the DEIR.

Availability of the Draft Environmental Impact Report

This DEIR has been distributed to responsible and trustee agencies, as well as to other interested parties, and has been made available for public review in accordance with CEQA Guidelines Section 15087. The DEIR is available for review on the Port's website at https://www.portofstockton.com/ceqa-documents/ and at the State Clearinghouse website at https://ceqanet.lci.ca.gov/2024100490.

The public review period for this DEIR extends from September 30 to November 13, 2026, for a minimum of 45 days following publication of the Notice of Availability. Written comments on the DEIR may be submitted to the Port during the public review period at the following address:

Jason Cashman, Director of Environmental Affairs, Port of Stockton
P.O. Box 2089
Stockton, CA 95201
jcashman@stocktonport.com
(209) 946-0246

Following the close of the public review period, the Port will prepare responses to comments received and will consider the DEIR, together with all comments and responses and any text edits made in response to comments, prior to making a decision on the proposed project.

Summary of Impacts and Mitigation

Summary of Project-Level Impacts

Anticipated environmental effects associated with the proposed project are evaluated in Section 3 of this DEIR. Feasible mitigation measures that could minimize significant adverse impacts are also identified in these sections. Table ES-1 summarizes the environmental impacts of the proposed project, applicable mitigation measures, and residual impacts following mitigation, including significant impacts reduced to less-than-significant levels with mitigation and impacts that would remain significant and unavoidable.

As part of the analysis, feasible mitigation measures were identified for significant adverse impacts where available. Mitigation measures were considered based on their ability to avoid or substantially reduce significant impacts, their feasibility, and their relationship to the proposed project. Mitigation measures that were determined to be infeasible, ineffective, or not applicable to the proposed project were not carried forward. Additional discussion of mitigation measures considered, where applicable, is provided in Section 3.

The proposed project would result in significant and unavoidable project-level impacts in the following resource areas: air quality, GHG emissions, and transportation. The proposed project would also result in significant project-level impacts that would be reduced to less-than-significant levels with mitigation in the following resource areas: biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, noise, and Tribal cultural resources.
Less-than-significant or no project-level impacts would occur in the following resource areas: aesthetics; agriculture and forestry resources; energy; land use and planning; mineral resources; population and housing; public services; recreation; utilities and service systems; and wildfire.
Mitigation measures identified in Table ES-2 have been incorporated where feasible to reduce impacts.

Summary of Cumulative Impacts

For this DEIR, the potential for other regional projects to contribute to cumulative impacts was analyzed using a list of related projects within the cumulative geographic scope (Section 4, Table 27). In consideration of these projects, cumulative impact analyses for each environmental resource area potentially affected by the proposed project are presented in Section 4. Implementation of the proposed project, in combination with other past, present, and reasonably foreseeable future

projects, may result in cumulatively considerable and significant unavoidable impacts related to air quality, GHG emissions, and transportation.

Table ES-1
Summary of Proposed Project Impacts and Mitigation

Impact Threshold Questions	Impact Determination	Mitigation Measures	Impact Determination After Mitigation
Aesthetics			
AES-1: Would the project have a substantial adverse effect on a scenic vista?	No impact	NA	No impact
AES-2: Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a scenic highway?	No impact	NA	No impact
AES-3: Would the project, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	Less-than-significant impact	NA	Less-than-significant impact
AES-4: Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	Less-than-significant impact	NA	Less-than-significant impact
Would the project result in cumulative impacts on aesthetics?	No cumulative impacts		
Air Quality			
AIR-1: Would the project conflict with or obstruct implementation of the applicable air quality plan?	Significant impact	MM-AIR-1 MM-AIR-2 MM-AIR-3 MM-AIR-4 MM-AIR-5 MM-AIR-6	Significant and unavoidable impact
AIR-2: Would the project 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 AAQS?	Significant impact	MM-AIR-1 MM-AIR-2 MM-AIR-3 MM-AIR-4 MM-AIR-5 MM-AIR-6	Significant and unavoidable impact

Impact Threshold Questions	Impact Determination	Mitigation Measures	Impact Determination After Mitigation
AIR-3: Would the project expose sensitive receptors to substantial pollutant concentrations?	Less-than-significant impact	MM-AIR-1 MM-AIR-2 MM-AIR-3 MM-AIR-4 MM-AIR-5 MM-AIR-6	Less-than-significant impact
AIR-4: Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	Less-than-significant impact	NA	Less-than-significant impact
Would the project result in cumulative impacts on air quality?	Cumulatively considerable impacts		
Biological Resources			
BIO-1: Would the project 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 Wildlife or U.S. Fish and Wildlife Service?	Significant impact	MM-BIO-1 MM-BIO-2 MM-BIO-3 MM-BIO-4 MM-BIO-5 MM-BIO-6	Less-than-significant impact
BIO-2: Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	Significant impact	MM-BIO-2 MM-BIO-3 MM-BIO-4 MM-BIO-5	Less-than-significant impact
BIO-3: Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?	No impact	NA	No impact
BIO-4: Would the project 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?	Significant impact	MM-BIO-3 MM-BIO-4 MM-BIO-5	Less-than-significant impact

Impact Threshold Questions	Impact Determination	Mitigation Measures	Impact Determination After Mitigation
BIO-5: Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	No impact	NA	No impact
BIO-6: Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	Significant impact	MM-BIO-1	Less-than-significant impact
Would the project result in cumulative impacts on biological resources?	No cumulative impacts		
Cultural Resources			
CUL-1: Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	No impact	NA	No impact
CUL-2: Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	Significant impact	MM-CUL-1	Less-than-significant impact
CUL-3: Would the project disturb any human remains, including those interred outside of formal cemeteries?	Significant impact	MM-CUL-1	Less-than-significant impact
Would the project result in cumulative impacts on cultural resources?	No cumulative impacts		
Energy			
ENE-1: 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	NA	Less-than-significant impact
ENE-2: Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	Less-than-significant impact	NA	Less-than-significant impact
Would the project result in cumulative energy impacts?	No cumulative impacts		
Geology and Soils			
GEO-1: Would the project directly or indirectly cause 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; or iv) landslides?	Less-than-significant impact	NA	Less-than-significant impact

Impact Threshold Questions	Impact Determination	Mitigation Measures	Impact Determination After Mitigation
GEO-2: Would the project result in substantial soil erosion or the loss of topsoil?	Significant impact	MM-BIO-2 MM-GEO-1	Less-than-significant impact
GEO-3: Would the project 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	NA	Less-than-significant impact
GEO-4: Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	Less-than-significant impact	NA	Less-than-significant impact
GEO-5: Would the project 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	NA	No impact
GEO-6: Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	No impact	NA	No impact
Would the project result in cumulative impacts on geology and soils?	No cumulative impacts		
Greenhouse Gas Emissions			
GHG-1: Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Significant impact	MM-GHG-1 MM-GHG-2 MM-GHG-3 MM-GHG-4	Significant and unavoidable impact
GHG-2: 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	MM-GHG-1 MM-GHG-2 MM-GHG-3 MM-GHG-4	Less-than-significant impact
Would the project result in cumulative greenhouse gas emissions impacts?	Cumulatively considerable impacts		
Hazards and Hazardous Materials			
HAZ-1: Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Significant impact	MM-BIO-2 MM-BIO-3 MM-HAZ-1	Less-than-significant impact

Impact Threshold Questions	Impact Determination	Mitigation Measures	Impact Determination After Mitigation
HAZ-2: Would the project 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?	Significant impact	MM-BIO-2 MM-BIO-3 MM-HAZ-1	Less-than-significant impact
HAZ-3: Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?	Less-than-significant impact	NA	Less-than-significant impact
HAZ-4: Would the project 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?	Less-than-significant impact	MM-HAZ-1	Less-than-significant impact
HAZ-5: For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	No impact	NA	No impact
HAZ-6: Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Less-than-significant impact	NA	Less-than-significant impact
HAZ-7: Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	No impact	NA	No impact
Would the project result in cumulative hazards or hazardous materials impacts?	No cumulative impacts		
Hydrology and Water Quality			
HYD-1: Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	Significant impact	MM-BIO-2 MM-BIO-5 MM-HAZ-1	Less-than-significant impact
HYD-2: Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	No impact	NA	No impact

Impact Threshold Questions	Impact Determination	Mitigation Measures	Impact Determination After Mitigation
HYD-3: Would the project 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 off site; iii) create or contribute runoff water which would exceed the existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or iv) impede or redirect flood flows?	Significant impact	MM-BIO-2	Less-than-significant impact
HYD-4: Would the project, in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	Less-than-significant impact	NA	Less-than-significant impact
HYD-5: Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	Significant impact	MM-BIO-2 MM-BIO-5 MM-HAZ-1	Less-than-significant impact
Would the project result in cumulative impacts on hydrology and water quality?	No cumulative impacts		
Land Use and Planning			
LAN-1: Would the project physically divide an established community?	Less-than-significant impact	NA	Less-than-significant impact
LAN-2: Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	Less-than-significant impact	NA	Less-than-significant impact
Would the project result in cumulative land use and planning impacts?	No cumulative impacts		
Noise			
NOI-1: Would the project result in 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?	Significant impact	MM-NOI-1 MM-NOI-2 MM-NOI-3	Less-than-significant impact
NOI-2: Would the project result in generation of excessive groundborne vibration or groundborne noise levels?	Less-than-significant impact	NA	Less-than-significant Impact
NOI-3: 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 2 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	NA	No impact

Impact Threshold Questions	Impact Determination	Mitigation Measures	Impact Determination After Mitigation
Would the project result in cumulative noise impacts?	No cumulative impacts		
Transportation			
TRA-1: Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	Less-than-significant impact	NA	Less-than-significant impact
TRA-2: Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3(b)?	Significant impact	MM-TRA-1	Significant and unavoidable Impact
TRA-3: Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	Less-than-significant impact	NA	Less-than-significant impact
TRA-4: Would the project result in inadequate emergency access?	Less-than-significant impact	NA	Less-than-significant impact
Would the project result in cumulative impacts on transportation?	Cumulatively considerable impacts		
Tribal Cultural Resources			
TRI-1: Would the project would 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: i) 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 ii) 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 (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	Significant impact	MM-CUL-1	Less-than-significant impact
Would the project result in cumulative impacts on Tribal cultural resources?	No cumulative impacts		

Table ES-2
Summary of Mitigation Measures

Name	Mitigation Measure
MM-AIR-1	**Construction Idling Reductions.** Nevada Cement will require construction contractors to minimize heavy-duty construction idling time to 2 minutes. Exceptions include vehicles that need to idle to perform work (such as a crane providing hydraulic power to the boom), vehicles being serviced, or vehicles in a queue waiting for work. The Port will include this measure as a lease measure and will be required as a specification in all construction contracts issued for the project by Nevada Cement. Nevada Cement shall perform random periodic checks of construction equipment and report compliance.
MM-AIR-2	**Use of Clean Equipment and Clean Trucks During Construction.** All off-road diesel-powered heavy equipment exceeding 50 horsepower used to construct the proposed project will be equipped with Tier-4 engines, except for specialized equipment or when Tier-4 engines are not available through at least two commercial equipment rental facilities in the SJVAB. In place of Tier-4 engines for equipment exceeding 50 horsepower, off-road diesel-powered heavy equipment will incorporate retrofits such that emission reductions achieve equal or exceed that of a Tier-4 engine. In addition, all heavy-duty on-road trucks used during construction shall be model year 2014 or newer, with a preference for zero-emission trucks where available. The contractor shall also prioritize the use of zero-emission construction equipment. This measure will be included as a requirement in the Port's lease and will be required as a specification in all construction contracts issued for the project by Nevada. Navada shall perform random periodic checks of construction equipment and report compliance.
MM-AIR-3	**Operational Truck Idling Reductions.** Nevada Cement will require trucks to minimize idling time to 2 minutes while on terminal. These requirements will be posted on site and included as a contract provision. This measure will be included as a requirement in the Port's lease. Nevada Cement shall perform random periodic checks of trucks and report compliance annually to the Port.
MM-AIR-4	**Use of Clean Trucks During Operations.** Nevada Cement will require all cargo trucks entering the terminal to be model year 2017 or newer trucks and further encourage its customers to use zero-emission trucks to transport cargo. Nevada Cement will require all trucks be in compliance with ARB air quality regulations for on-road trucks, including ARB's Heavy-Duty (Tractor-Trailer) Greenhouse Gas Regulation, Periodic Smoke Inspection Program, and the Statewide Truck and Bus Regulation. Nevada Cement will also educate customers about the SJVAPCD Truck Replacement Program and ARB's Advanced Clean Truck Program, including funding opportunities, via direct or electronic mailings. Nevada Cement will post a copy of the SJVAPCD Truck Replacement Program information (currently available at http://valleyair.org/grants/truck-replacement.htm) and applicable ARB regulations at the terminal. These requirements will be posted on site and included as a contract provision. This measure will be included as a requirement in the Port's lease. Nevada Cement shall perform random periodic checks of trucks and report compliance annually to the Port.
MM-AIR-5	**Use of Clean Yard Equipment.** Nevada Cement will require terminal and yard equipment, including yard hostlers, yard mules, aerial lifts, forklifts, sweeper/scrubbers, shuttlewagons, and loaders, to be the cleanest available equipment (for future purchases). Considerations for clean equipment will include a first preference for zero-emission equipment, a second preference for near-zero equipment, and then preference for the cleanest available equipment if neither zero nor near-zero equipment are available or feasible. Nevada Cement will ensure the proper infrastructure to support such equipment is available. This measure will be included as a requirement in the Port's lease. Nevada Cement shall report compliance annually to the Port.

Name	Mitigation Measure
MM-AIR-6	**Use of High-Efficiency Dust Collection Systems.** Prior to operation of modified or new material handling equipment, Nevada Cement shall ensure that all new or replacement dust collection systems (e.g., baghouses) associated with the proposed project are designed and operated to achieve high PM control efficiency. Dust collection systems shall utilize high-efficiency filter media (e.g., membrane or equivalent technology) designed to achieve a control efficiency of at least 99% for PM_{10} and $PM_{2.5}$ and shall be designed to meet or exceed a maximum outlet concentration of 0.005 grain per dry standard cubic foot, consistent with BACT or permit requirements, as applicable. All systems shall be properly maintained and operated according to manufacturer specifications to ensure continued performance, and filter media shall be replaced at the end of its useful life with equivalent or more effective control technology. Nevada Cement shall provide documentation of filter specifications and control efficiency to the Port prior to operation of the applicable equipment. This measure will be included as a requirement in the Port's lease. Nevada Cement shall report compliance annually to the Port.
PP-1	**Participation in the Port's Pilot Emissions Reductions Program.** The Port is developing a pilot program that will allow Port tenants to address residual emissions that cannot be feasibly mitigated through traditional CEQA measures. Similar in concept to the SJVAPCD's VERA program, such a program could provide a mechanism for tenants to fund surplus emission reduction projects within the Port that achieve verifiable reductions in criteria pollutant emissions. In addition to the measures, Nevada Cement will also have the option to participate in the Port's pilot emissions reduction program pending pilot program finalization. This measure is expected to be available for the final EIR.
MM-BIO-1	**Obtain Coverage under the SJMSCP or Conduct Nesting Bird Surveys.** To avoid impacts on potentially present special-status species, the proposed project will obtain coverage under the SJMSCP. Nevada Cement will submit an application for coverage to SJCOG within 60 days of project construction. SJCOG will review the proposed project, prepare a staff report, and submit the report to the SJMSCP Habitat Technical Advisory Committee, which determines whether the proposed project will be covered under the SJMSCP. Assuming the proposed project is approved for coverage, a SJCOG biologist will conduct a site visit to determine which ITMMs included in the SJMSCP are applicable to the proposed project. SJCOG will then execute a final summary of applicable ITMMs for the proposed project. ITMMs would include surveys, monitoring, and the application of temporary construction buffers, if determined appropriate by SJCOG. Nevada Cement will implement all required ITMMs identified by the SJCOG. Ground disturbance will not occur until the ITMMs have been satisfied.
MM-BIO-2	**Obtain and Implement NPDES Construction Stormwater General Permit.** A NPDES Construction Stormwater General Permit will be obtained for the proposed project, which will require the development of a construction SWPPP. The construction SWPPP would include BMPs, including or similar to use of barriers (e.g., netting or sandbags) to prevent pollutants from entering the water, equipment inspection for spills, and maintenance and implementation of material spill prevention and cleanup plans. The construction SWPPP would ensure that contaminants are not accidentally introduced into the waterway.
MM-BIO-3	**Conduct In-water Construction During Established Window.** All in-water work will be conducted during the annual CDFW-, NMFS-, and USFWS-approved work window, which is expected to span July 1 through November 30.

Name	Mitigation Measure
MM-BIO-4	**Implement a Monitoring Plan During Pile Driving.** During construction, Nevada Cement would implement a PSMP to protect fish and marine mammal species that may be in the project area. As determined in consultation with NMFS or CDFW biological monitors would be used. A pre-start visual scan of the in-water work area prior to initiating pile driving (impact or vibratory) to identify the presence of ESA-listed fish at the surface will be conducted by contractors. The plan includes soft-start techniques for impact pile driving, which is industry standard and will be required per regulatory permits. Soft-start techniques include bringing pile driving or other loud equipment online slowly, providing fish potentially present the opportunity to disperse from the project area. Noise impacts due to pile driving would be minimized through vibratory installation methods, soft start, and sequence pile installation. Workers at the project site would not harass any fish or waterfowl in the project area. The plan also includes in-air and in-water shutdown zones that will be monitored by protected species observers during all pile-driving activity (Appendix F).
MM-BIO-5	**Compliance with Permitting Requirements for In-Water Work.** For in-water work, Nevada Cement would comply with permitting requirements from USACE, RWQCB, and CDFW to avoid water quality and other natural habitat impacts. Requirements will likely include implementing erosion controls, designating appropriate staging and fueling areas, requiring equipment inspections and maintenance, and additional standard construction BMPs.
MM-BIO-6	**Purchase of Fish Habitat Mitigation Credits for Potential Bioacoustic Impacts.** To compensate potential temporary bioacoustics impacts that could exceed conservative cSEL screening thresholds under modeling assumptions, 0.15 fish habitat acre-credit would be purchased from the Liberty Island Conservation Bank, North Delta Conservation Bank, or other fish habitat mitigation bank with available credits and appropriate service area. This mitigation is proposed as a precautionary conservation measure and does not reflect an expectation that take of ESA-listed species would occur.
MM-CUL-1	**Inadvertent Discovery of Cultural Resources and Human Remains.** In the event that cultural resources (e.g., archaeological materials, Tribal cultural resources, or human remains) are encountered during ground-disturbing activities, all work within 100 feet of the discovery shall be halted. A qualified archaeologist shall be retained to evaluate the find and recommend appropriate treatment measures. If human remains are discovered, the San Joaquin County Coroner shall be notified immediately in accordance with HSC Section 7050.5. If the remains are determined to be Native American, the NAHC shall be notified within 24 hours, and consultation with the Most Likely Descendant shall be conducted in accordance with PRC Section 5097.98. An IDP shall be developed and implemented prior to construction to provide detailed procedures for addressing unanticipated discoveries.
MM-GEO-1	**Implement Construction Best Management Practices.** Standard construction BMPs—including but not limited to use of storm drain inlet filters, erosion control (e.g., straw wattles), and maintenance of spill control kits—will be implemented during construction to control or respond to spills or other potential sources of construction-related erosion. The Port will include this measure as a requirement in Nevada Cement's lease. Nevada Cement will be required to add the measures as a specification in all construction contracts issued for the project by Nevada Cement.

Name	Mitigation Measure
MM-GHG-1	**Energy Audit.** Within 6 months of the effective date of the new lease, Nevada Cement will conduct an energy audit of the design plans to determine whether there are additional energy-saving features that can be implemented as part of construction and warehouse design and operations. The plan must be submitted to the Port for review and approval. The plan will incorporate the following measures at a minimum: • Replace less-efficient lighting with energy-efficient lighting, where applicable and in compliance with safety requirements, on the premises and outdoors, including the parking lot, loading dock, security, and exit signs. High-mast parking lot lighting will use LED lighting or a technology with similar energy-saving capabilities, and motion sensors will be installed where lighting is not used for security. • Install ENERGY STAR-qualified HVAC equipment and variable frequency drives. When installing new equipment, ensure that the system is not oversized for the building's heating and cooling needs. • Provide an assessment of additional renewable energy options, including use of solar.
MM-GHG-2	**Waste Reduction.** Within 9 months of the effective date of the new lease, Nevada Cement will perform an audit of its waste stream to identify areas for total waste reduction, including reductions of single-use products and details for transitioning to a procurement process that prioritizes recycled goods and products. For resultant waste, Nevada Cement will develop a plan to ensure waste is recycled where available.
MM-GHG-3	**Construction Recycling.** Nevada Cement will require construction contractors to recycle construction and demolition debris where feasible. These requirements will be posted on site and included as a contract provision.
MM-GHG-4	**Electric Vehicle Infrastructure.** Nevada Cement will evaluate and, where feasible, install electric vehicle charging infrastructure to support zero-emission vehicles.
MM-HAZ-1	**Pre-construction Hazardous Materials Survey and Worker Training.** Prior to demolition activities, Nevada Cement will complete a survey for potentially hazardous materials, including, but not limited to, asbestos, lead paint, mercury and PCB-containing materials, ADL, and residual pesticides. Surveys will be completed in adherence with relevant DTSC guidelines. In the event that potentially hazardous materials are encountered, Nevada Cement will manage and dispose of such materials in compliance with OSHA regulations. Nevada Cement shall also ensure compliance with OSHA regulations to address potential hazards associated with the site's designation as a military evaluation site, including through measures such as appropriate training of workers and developing contingencies for responding to hazardous material conditions that may be encountered on site.
MM-NOI-1	**Pile Driving Noise Attenuation Measures.** Nevada Cement will implement feasible sound-dampening measures during pile-driving activities to reduce noise at nearby sensitive receptors. Measures may include, but are not limited to, the use of quieter pile-driving techniques (e.g., pre-drilling where feasible, vibratory or sonic pile drivers, and limited use of impact pile driving where feasible), installation of wood cushion blocks between the pile and hammer, and/or use of noise attenuation systems such as pile caps, shrouds, or acoustic blankets surrounding the pile-driving equipment. Where impact pile driving is required, soft-start techniques shall be implemented (i.e., gradual ramp-up of hammer energy) to provide an initial warning period and reduce sudden noise onset. Selection of specific measures will consider geotechnical and structural requirements and site constraints.

Name	Mitigation Measure
MM-NOI-2	**Timing Restrictions.** Nevada Cement will require that the construction contractor limit the timing of pile-driving activity to result in the least disturbance possible. City municipal code allows for construction 7 days per week between the hours of 7:00 a.m. and 10:00 p.m. However, as a mitigation measure, Nevada Cement will limit the times and days of pile-driving activities (i.e., between the hours of 9:00 a.m. and 5:00 p.m. and limit the work to only occur on weekdays). Imposing these additional limits may reduce the potential for disturbance of nearby residences during times of day and/or hours of day when noise-sensitive receptors may have higher sensitivities to impact-type noises.
MM-NOI-3	**Shielding Requirements.** Nevada Cement will implement temporary noise shielding for stationary and high-noise construction equipment (e.g., generators, compressors, impact pile drivers, and similar equipment) when located in proximity to noise-sensitive receptors. Shielding shall consist of solid barriers (e.g., plywood walls, acoustic panels, or equivalent materials) positioned as close as feasible to the noise source and constructed with sufficient height and mass to interrupt the line of sight between the source and receptors. Where feasible, equipment shall be partially or fully enclosed within such shielding.
MM-TRA-1	**Transportation Demand Management Plan Implementation.** The applicant shall implement a TDM Plan that includes the following components: implementation of a commute trip reduction program that could include a carpooling/ride-matching program and/or preferential carpool parking for terminal employees and contractors. The plan will be prepared in consultation with a qualified traffic engineer and approved by the Port prior to implementation. The TDM Plan shall include an ongoing obligation to update the plan to achieve greater reductions as new TDM measures become available.

1 Introduction

1.1 Intended Use of This Environmental Impact Report

This Draft Environmental Impact Report (DEIR) was prepared by the Port of Stockton (Port) to identify the potential environmental impacts of the proposed Nevada Cement Company LLC (Nevada Cement) Stockton Terminal Modernization Project (proposed project) under the California Environmental Quality Act (CEQA; Public Resources Code [PRC] 21000 et seq.) and the CEQA Guidelines (14 California Code of Regulations [CCR] 15000 et seq.). The proposed project involves redeveloping the existing bulk cementitious materials receiving and distribution terminal to accommodate additional capacity and improve operational efficiency. The proposed project would require a lease modification from the Port, which is a discretionary action subject to CEQA.

1.2 California Environmental Quality Act Process

CEQA, enacted by the California legislature in 1970, requires public agency decision-makers to consider the environmental effects of their actions. One of the main objectives of CEQA is to disclose the potential environmental effects of proposed activities to the public and decision-makers. CEQA requires that the potential environmental effects of a project be evaluated prior to implementation. Consistent with CEQA Guidelines Section 15002, the primary purposes of this DEIR include the following:

- 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 the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible.
- Disclose to the public the reasons that a governmental agency approved the proposed project in the manner the agency chose if significant environmental effects are involved.

The DEIR is an informational document used in the planning and decision-making process. It is not the purpose of a DEIR to recommend either approval or denial of a project. This DEIR meets CEQA content requirements by including a project description, environmental setting, analysis of environmental impacts, mitigation measures, alternatives, and a discussion of consistency with applicable plans and policies. This DEIR is being circulated to potentially affected agencies and the public for review and comment over a 45-day review period, from September 30 to November 13, 2026.

The information contained in this DEIR, comments received during the public review period, the final Environmental Impact Report (EIR) and responses to comments, and the administrative record will be reviewed and considered by the lead agency prior to making a decision to approve, disapprove, or

modify the proposed project. If approved, consistent with CEQA Guidelines Section 15002, the decision-making body will be required to disclose to the public the reasons why the proposed project was approved if significant environmental effects are involved. In addition, the DEIR will also be used by responsible agencies for the purpose of deciding whether and how to approve the proposed project within their jurisdictional authorities and responsibilities.

1.3 Agency Roles and Responsibilities

The Port serves as the CEQA lead agency for the proposed project. As lead agency, the Port is responsible for preparing this DEIR and considering its findings prior to project approval.

Other public agencies may have jurisdiction over specific aspects of the proposed project and may serve as responsible or trustee agencies under CEQA. Responsible agencies are those with discretionary approval authority over project components, whereas trustee agencies have jurisdiction over natural resources that may be affected by the proposed project.

These agencies may issue permits or approvals related to areas such as air quality, water quality, biological resources, and navigation. Table 1 identifies the agencies anticipated to have jurisdiction over the proposed project and summarizes their roles and responsibilities.

All agencies identified in Table 1 were notified of the Port's intention to prepare an EIR. The jurisdiction of these agencies will be confirmed through subsequent coordination.

Table 1
Regulatory Agencies and Authority

Regulatory Agency	Jurisdiction	Statutory Authority/Implementing Regulations
CSLC	Trustee Agency	Reviews dredging and placement of structures on state tidelands. Berths 2 and 3 are located on lands that were historically upland but may now be subject to tideland jurisdiction.
CDFW	Trustee Agency and Responsible Agency	Reviews and submits recommendations in accordance with CEQA. Reviews and authorizes in-water work and work in riparian areas under the FGC. The proposed project is expected to require a Streambed Alteration Agreement.
USACE	Federal Permitting Agency	Reviews and authorizes in-water work under the CWA and Rivers and Harbors Act. The proposed project is expected to require permits under these regulations.
Central Valley RWQCB	Responsible Agency	Permitting authority for water quality, including point and non-point source discharges. Reviews projects for authorization under the Porter-Cologne Water Quality Control Act and CWA Sections 401 and 402. The proposed project is expected to require a 401 Water Quality Certification and coverage under existing General Orders for stormwater generated at the site during construction.

Regulatory Agency	Jurisdiction	Statutory Authority/Implementing Regulations
Office of Historic Preservation	Responsible Agency	Consults with federal lead agencies under Section 106 of the NHPA regarding impacts on cultural resources that are either listed, or eligible for listing, on the National Register of Historic Places. The proposed project may require Section 106 consultation with the State Historic Preservation Officer.
SJVAPCD	Responsible Agency	Review authority under the CCAA and responsibility for implementing federal and state regulations at the local level and permitting stationary sources of air pollution. The proposed project is expected to require a Demolition Permit Release Form, an Authority to Construct permit, and modification(s) to the facility's existing PTO.
San Joaquin County Department of Environmental Health	Responsible Agency	Regulates the handling, disposal, generation of, and cleanup from accidental spills of hazardous waste, on-site petroleum storage, and drilling activities. The proposed project will comply with these requirements.
SJCOG	Responsible Agency	Reviews and approves projects obtaining coverage under the SJMSCP. The proposed project is expected to apply for coverage under the SJMSCP.
City of Stockton Building Department	Responsible Agency	Reviews and approves mechanical, electrical, demolition, and building permits, which are expected to be required for the proposed project.
City of Stockton Fire Department	Responsible Agency	Reviews and approves fire protection systems.

1.4 Public Participation, Consultation, and Coordination

The Port conducted public outreach and agency coordination in accordance with CEQA requirements. This included distribution of the Notice of Preparation and accompanying Initial Study (NOP/IS), consultation with responsible and trustee agencies, and solicitation of public and agency comments.

1.5 Notice of Preparation

After deciding that an EIR is needed, the lead agency (in this case, the Port) is required to prepare and distribute a notice informing interested parties that an EIR will be prepared. The CEQA Guidelines require that an NOP be sent "immediately after deciding that an environmental impact report is required for the project" (CEQA Guidelines Section 15082[a]) and include "sufficient information describing the project and the potential environmental effects to enable the responsible agencies to make a meaningful response" (CEQA Guidelines Section 15082[a][1]). The Port distributed the NOP/IS (Appendix A) for the proposed project on October 11, 2024, for a 30-day public review period ending on November 12, 2024. Public comments received during the scoping process were considered in this DEIR (Appendix B).

1.5.1 Public Scoping and Agency Coordination

The CEQA Guidelines recommend that public scoping be combined to the extent possible with consultation with responsible agencies, as required under 14 CCR 15086. Consultation is conducted with agencies that will be locally involved in the environmental review process, as well as state and federal agencies and Tribal governments, as appropriate.

CEQA Guidelines Sections 15086(a)(1–2) require that the lead agency formally consult with responsible and trustee agencies. On October 11, 2024, the Port filed the NOP/IS with the Governor's Office of Planning and Research (OPR) and the San Joaquin County Clerk. The Port also sent the NOP/IS directly to responsible and trustee agencies. In total, the following agencies received the NOP/IS prepared for the proposed project:

- City of Stockton Fire Department
- California State Lands Commission (CSLC)
- San Joaquin Valley Air Pollution Control District (SJVAPCD)
- SJVAPCD Environmental Justice Advisory Group
- U.S. Coast Guard (USCG)
- City of Stockton Economic Development
- California Department of Toxic Substances Control (DTSC)
- California Department of Fish and Wildlife (CDFW), Bay Delta Region
- San Joaquin County Board of Supervisors
- U.S. Army Corps of Engineers (USACE), Sacramento District
- U.S. Environmental Protection Agency (USEPA), Region 9
- California Air Resources Board
- Reclamation District 403
- San Joaquin Council of Governments (SJCOG)
- State Water Resources Control Board (SWRCB)
- National Marine Fisheries Service (NMFS)
- California Environmental Protection Board
- Bureau of Environmental Justice California Attorney General's Office – Deputy Attorney General
- City of Stockton Public Works
- U.S. Fish and Wildlife Service (USFWS)
- Central Valley Flood Protection Board
- Central Valley Regional Water Quality Control Board (Central Valley RWQCB)
- California Department of Transportation (Caltrans) District 10
- California State Department of Justice
- California Office of Historic Preservation
- City of Stockton Building Department

- San Joaquin County Planning Department
- San Joaquin County Environmental Health Department (SJCEHD)
- U.S. House of Representatives

Ten comment letter responses were received during the scoping period from the following groups:

- Restore the Delta
- SJCEHD
- Native American Heritage Commission (NAHC)
- Sierra Club, Delta-Sierra Group, and Mother Lode Chapter
- Regional Water Quality Control Board (RWQCB)
- SJVAPCD
- Machinists and Mechanics Lodge No. 2182
- CDFW
- Confederated Villages of Lisjan Nation
- Muwekma Ohlone Tribe of the San Francisco Bay Area

The letters received in response to the NOP/IS are included as Appendix B. A list of the public, agency, and Tribal commenters and a summary of the key issues they raised are shown in Table 2.

Table 2
Summary of Scoping Comments

Commenter	Key Issues Raised
State, Regional, and Local Agencies	
Restore the Delta	• Operational air pollution impacts to the Southwest Stockton community • Cumulative impacts with other planned and approved industrial development at the Port • Public health impacts from other planned industrial development at the Port • Support for improving energy efficiency, reducing vessel traffic congestion in the shipping channel, reducing rail traffic, lowering air emissions of cement unloading operations, and the retirement of the *Golden Arrow* • Air quality mitigation during construction • Details of SJVAPCD PTO (Facility Number N-153) • Anticipated future channel dredging as a result of the proposed project • Estimates of at-berth NOx and SOx emissions with and without implementation of onshore emissions capture and control systems
SJCEHD	• Agreement that an EIR is required for the proposed project, as described in the NOP/IS
NAHC	• Recommendation and guidelines for consultation with California Native American Tribes in the project area

Commenter	Key Issues Raised
Sierra Club, Delta-Sierra Group, and Mother Lode Chapter	• Increased truck, rail, and marine transportation impacts and the need to reduce emissions with clean energy emissions reductions • Assertion that hydrogen produced from fossil methane gas is not clean energy • Condition of the *Golden Arrow* and the disposition when moved outside of the Port • Operational air pollution impacts • Request that the baseline analysis be reduced to zero • Request for a more complete descriptions of operations • Definition of import and export at the Port and the source of all materials • Analysis of operational, rail, truck, and marine activity changes over the last 10 years • Concern for the health and welfare of Stockton residents • Air quality monitoring as mitigation during operations • Cumulative impact analysis • Air quality and GHG analyses • Utilities/service systems and fire systems impacts and baseline descriptions • The presence of golden mussel and its relation to water quality and firefighting abilities • Site safety plan • Potable water services at the Port • Emergency response and emergency evacuation planning • Existing regulatory permits
RWQCB	• Regulatory setting • Permitting requirements
SJVAPCD	• Compliance with AB 617 • Construction and operational emissions • Health risk screening/assessment for sensitive receptors • AAQA • Voluntary emission reduction agreement • Truck routing and emissions impacts • Recommended measures to reduce air quality impacts • Odors • District rules, regulations, and permitting requirements
Machinists and Mechanics Lodge No. 2182	• Support for the proposed project • Positive impacts of modernization • Economics and local jobs
CDFW	• CDFW role and regulatory setting • Project description and site plans • Occurrence of fully protected, threatened or endangered, candidate, and other special-status species or sensitive natural communities in or near the project site • Impact analysis, mitigation measures, and recommendations regarding CEQA
Tribes	
Confederated Villages of Lisjan Nation	• Request copy of the final CHRIS, EIR, SLF from NAHC, and additional archaeological reports

Commenter	Key Issues Raised
Muwekma Ohlone Tribe of the San Francisco Bay Area	• Interest in the proposed project and offer to further discuss

1.5.2 Regulatory Guidance Related to Public Outreach and Coordination

1.5.2.1 Assembly Bill 52

Assembly Bill (AB) 52 became effective on July 1, 2015. It requires lead agencies to consider the effects of projects on Tribal cultural resources and to conduct notification and consultation with federally and non-federally recognized Native American Tribes and NAHC early in the environmental review process. Six Native American Tribes—the Buena Vista Tribe of Miwok (Me-Wuk) Indians, the Confederated Villages of Lisjan, the Muwekma Ohlone Indian Tribe of the San Francisco Bay Area, the North Valley Yokuts Tribe, the Tule River Indian Tribe, and the Wilton Rancheria Tribe—have requested consultation on CEQA documentation for projects at the Port. The Port initiated consultation with the six Tribes in August 2024 and requested a search of NAHC's Sacred Lands Information File in August 2024. Section 3.14 (Tribal Cultural Resources) provides an overview of the consultation process and search results.

1.5.2.2 Assembly Bill 617

AB 617 (C. Garcia, Chapter 136, Statutes of 2017), requires the California Air Resources Board (ARB) to develop an air toxic monitoring plan for the state focusing on community air monitoring at priority locations, including the presence of sensitive receptors like schools and hospitals, whether the community is disadvantaged, and whether there is a high degree of exposure to toxic air contaminants (TACs) and criteria air pollutants. In response to AB 617, ARB has established the Community Air Protection Program (CAPP). The CAPP's goal is to reduce exposure in communities most impacted by air pollution. The CAPP works with local air districts to implement monitoring networks and address emission sources. Four AB 617 communities have been identified in the San Joaquin Valley, including the Southwest Stockton community. SJVAPCD is working closely with community residents, community businesses, and other key stakeholders, including the Port, to reduce exposure to harmful air pollutants in selected communities. Through the implementation of this legislation, SJVAPCD, with input from the community, will be deploying additional community-specific air quality monitoring to better understand the impacts of local sources of pollution and developing community-specific emission reduction programs. The Port is a member of the AB 617 community steering committee and intends to be active in developing strategies to protect public health and the environment.

1.6 Incorporation by Reference

As permitted in Section 15150 of the CEQA Guidelines, an EIR may reference all or portions of another document that is a matter of public record or is generally available to the public. Information from the documents that have been incorporated by reference has been briefly summarized in the appropriate sections of this DEIR, along with a description of how the public may obtain and review these documents. The documents that are incorporated by reference are available for review at the internet links provided in the following sections or during working hours from 8:00 a.m. to 5:00 p.m., Monday through Friday at the Port at 315 West Fyffe Avenue, Stockton, California, 95201. Documents incorporated by reference are included as follows.

1.6.1 Lehigh Southwest Stockton Terminal Project Draft EIR

This document (Port 2020; available online at https://ceqanet.opr.ca.gov/Project/2019100510) is appropriate to incorporate by reference because it provides historical background information and environmental setting information that has not changed since it was published because the project site and existing facility are the same as for the proposed project. Although proposed project details differ, the document provides relevant background and environmental setting information applicable to the project site.

1.6.2 Envision Stockton 2040 General Plan

This document (available online at https://cms3.revize.com/revize/stockton/Documents/Business/Planning%20&%20Engineering/General%20Plan/2040%20General%20Plan%20(1).pdf?t=202508141945080&t=202508141945080) is appropriate to incorporate by reference because the City of Stockton's (City's) *Envision Stockton 2040 General Plan* (2040 General Plan; City 2018) establishes the land use designations for the project site with which the proposed project is consistent. Furthermore, the 2040 General Plan identifies the area surrounding the project site as Industrial, General (IG)/Port (PT) Use and specifically identifies the project site for commercial development on the western portion of the property and residential development on the eastern portion of the property. The 2040 General Plan also guides the maintenance, design, and operation of transportation resources in Stockton, including streets and highways, within the project area and sets regional noise standards based on land use designations.

1.6.3 City of Stockton Municipal Code

This document (available online at https://qcode.us/codes/stockton/) is appropriate to incorporate by reference because the City designates Landmarks and Historic Sites under the City Municipal Code Title 16, Division 7, Chapter 16.220. Landmarks are artifacts, natural features, or structures notable for one or more of the following: archaeological interest; architectural craftsmanship, style, or type; association with a historic event or person; association with the heritage of the City, state, or nation;

visual characteristics; relationship to another landmark; or integrity as a natural environment. Port resources have been identified as having significant historical or cultural significance. Title 16, Division 5, Chapter 16.130 of the City Municipal Code provides protection for heritage oaks in Stockton.

1.6.4 City of Stockton Climate Action Plan

This document (available online at https://cms3.revize.com/revize/stockton/Documents/Government/City%20Manager/Sustainability/Climate_Action_Plan_August_2014.pdf) was approved in August 2014 (City 2014). It is appropriate to incorporate by reference because the City's Climate Action Plan (CAP) provides the most recent goals and associated measures applicable to the project in the sectors of energy use, transportation, land use, water, solid waste, and off-road equipment. Consistent with SJVAPCD guidance, the CAP relies on a goal of 29% reduction in greenhouse gas (GHG) emissions from business as usual (BAU) by 2020. The City is currently developing a comprehensive update to the CAP that aims to develop a plan to help Stockton, unincorporated San Joaquin County, and other cities in the county reduce GHG emissions in the short term and long term. The plan will also develop strategies to protect Stockton communities and businesses from the impacts of climate change, such as extreme heat, flooding, and wildfire smoke. The City released a draft Comprehensive Climate Action and Adaptation Plan (CCAAP; City 2026), including a GHG inventory for public review through April 30, 2026. Following the close of the public review period, the City reviewed public comments and responses and continued preparing the CCAAP for City Council consideration and adoption.

1.7 Scope of This Environmental Impact Report

CEQA Guidelines Section 15120 requires that an EIR include numerous components but allows for documents to be prepared in a wide variety of formats so long as the essential elements of information are included. As detailed in CEQA Guidelines Section 15126.2, an EIR shall identify and focus on the significant environmental effects of the proposed project. In assessing the potential environmental effects of the proposed project, the lead agency should normally limit its examination to changes in the existing physical conditions in the affected area as they exist at the time the NOP is published—or where no NOP is published, at the time environmental analysis is commenced.

As fully discussed in Section 2 of the DEIR, the project site is an existing bulk cementitious material receiving and distribution marine terminal. Nevada Cement currently receives, stores, and ships cementitious materials to the local Stockton area and regional Northern California construction industry. The terminal is aging and operationally constrained and requires updates to modernize and increase operational efficiency. Cementitious material is imported via bulk oceangoing vessels (OGVs) at Berth 2 and offloaded to the terminal using a specialized mechanical ship unloader provided with a pneumatic delivery system to limit dust and material loss. As vessels have increased

in size, the terminal's existing ship unloader's horizontal arm is currently too short to reach effectively across a ship's hold, making it inadequate to fully extract cementitious material from the hold without relocating the ship. In addition, the terminal's existing wooden rail trestle has limited weight-bearing capacity and cannot be used to transport full railcars or engines. It has also been determined that the existing track on the existing berths, accessed by the wooden trestle, cannot be used for active railcar staging and loading due to safety concerns while a ship is at berth. Upland operations, including rail and truck loading systems are also not as efficient as needed.

This DEIR considers the existing Nevada Cement facility as the baseline condition by which to assess potential environmental impacts. The CEQA baseline is described in Section 2.2. The scope of the DEIR is the potential direct, indirect, and cumulative impacts associated with construction needed to update the terminal and changes to operations following terminal upgrades as compared to baseline conditions.

An IS was prepared and included in the NOP for the proposed project (Appendix A) to determine which environmental effects could potentially result in significant impacts and therefore focus the DEIR on those resource areas. As detailed in the IS, the following resource areas were found to result in no potentially significant environmental impacts and are not addressed in this DEIR. A summary of IS findings is as follows:

- **Agriculture and Forestry Resources:** The City's 2040 General Plan designates the project site for industrial use, and the zoning classification of the project site and surrounding parcels is Port or IG (City 2018). Neither the project site nor the immediate surrounding areas currently support agricultural use or forestry resources. No timberland zoned parcels exist in San Joaquin County; the nearest forest area is the Stanislaus Forest, which is more than 50 miles away. All property surrounding the project site has been developed or planned for industrial or urban land uses. The project area is zoned for non-agricultural uses, which precludes the lease area from qualifying for Williamson Act contracts. Therefore, the proposed project would result in no impacts related to agriculture and forestry resources.
- **Mineral Resources:** The project area is classified as a Mineral Resource Zone-1 (MRZ-1; California Department of Conservation 2012). As such, no significant mineral deposits are present, and little likelihood exists for their presence. The project site does not contain any known mineral resources, including any rock, sand, or gravel resources. Therefore, the proposed project would result in no impacts related to mineral resources.
- **Population and Housing:** No new homes would be constructed as a result of the proposed project, nor are there housing units in the project area. The proposed project would have no effect on the availability of housing for existing residential areas, and the site's zoning precludes the potential for future housing developments. Therefore, the proposed project would result in no impacts related to population and housing.

- **Public Services:** The project area is adequately served by the City Fire Department, City Police Department, Port Police, USCG, and other marine agencies. The proposed project would not result in increased demand on any existing facilities or services, including fire protection, police, schools, or parks. Therefore, the proposed project would result in no impacts related to public services.
- **Recreation:** There are no park resources within the immediate project area due to the industrial zoning and uses. Neither the construction nor the operation of the proposed facility would increase the use of existing neighborhood and regional parks or other recreational facilities. The proposed 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 proposed project would result in no impacts related to recreation.
- **Utilities and Service Systems:** The proposed project would not require new or expanded off-site utility infrastructure, because improvements are limited to on-site upgrades and reconfiguration of existing facilities. The proposed project would not increase demand on public utilities or require off-site extensions. Therefore, the proposed project would result in no impacts related to utilities and service systems.
- **Wildfire:** The project area is located within an area considered to have low wildfire risk (CAL FIRE 2023). The Nevada Cement terminal primarily handles non-flammable materials as part of its operations. As previously described, there are emergency response plans already in place, and fire response services already adequately serving the facility. Therefore, the proposed project would result in no impacts related to wildfire.

1.8 Draft Environmental Impact Report Organization

The content and format of this DEIR are organized into the following sections to meet the requirements of CEQA and the CEQA Guidelines:

- **Executive Summary.** Summarizes the proposed project, alternatives, potential impacts, and mitigation measures.
- **Section 1: Introduction.** Describes the purpose and use of the DEIR and outlines the organization of the DEIR.
- **Section 2: Project Description.** Describes the proposed project's background, discloses objectives of the proposed project, and provides details on project elements, including construction and operational activities and considerations.
- **Section 3: Environmental Impact Analysis.** Describes the environmental conditions existing in the project area as of the date of the NOP and discusses the environmental setting, significance criteria, environmental impacts, and mitigation measures specific to each environmental resource area analyzed in the DEIR.
- **Section 4: Cumulative Impacts.** Identifies related projects and analyzes the potential for cumulative impacts from the proposed project in addition to related projects.

- **Section 5: Other Required Analyses.** Identifies any unavoidable significant impacts, significant irreversible environmental changes, and direct and indirect growth-inducing impacts of the proposed project.
- **Section 6: Alternatives.** Discusses a range of reasonable alternatives to the proposed project that would feasibly attain all or most of the basic objectives and would avoid or substantially lessen any of the potentially significant environmental effects of the proposed project.
- **Section 7: List of Preparers.** Provides a list of authors who assisted with the preparation of the DEIR.
- **Section 8: References.** Provides a list of references used to provide information in preparation of the DEIR.
- **Appendices.** The following appendices are attached to this DEIR:
  - **Appendix A:** Notice of Preparation/Initial Study
  - **Appendix B:** Comments Received on the Notice of Preparation/Initial Study
  - **Appendix C:** Air Quality and Greenhouse Gas Technical Appendix
  - **Appendix D:** Special-Status Species Potentially Present in the Study Area
  - **Appendix E:** CNPS Plants with Potential to Occur in the Study Area
  - **Appendix F:** Biological Assessment
  - **Appendix G:** Department of Parks and Recreation Forms
  - **Appendix H:** Supporting Noise Calculations
  - **Appendix I:** Transportation Study

2 Project Description

2.1 Proposed Project Overview

The proposed project involves modernizing an existing bulk cementitious material receiving and distribution terminal at the Nevada Cement marine terminal at 205 Port Road 1 in Stockton, California (Figure 1). The proposed project site includes the following areas: Berth 2, Berth 3/4, and the terminal backland area outlined in blue in Figure 2. The proposed project includes a lease modification with the Port to increase Nevada Cement's leasehold from approximately 4.92 acres to approximately 10.98 acres (Figure 3).

As part of the proposed project, Nevada Cement would replace and upgrade aging upland and marine infrastructure to improve the efficiency of cementitious material receiving and distribution. The proposed improvements would allow the terminal to accommodate larger vessels, improve operational efficiency, and modernize existing infrastructure to support continued supply to the Northern California construction market.

Key improvements include installation of a new ship unloader with extended horizontal and vertical reach; installation of associated material handling equipment at Berth 3/4; installation of a fully enclosed inbound conveyor system to a new storage dome; addition of a new rail loading station; upgrades to existing truck loading stations; and addition of barge loading capability. These improvements would increase unloading efficiency and reduce fugitive dust during material handling. In addition, the upgraded rail loading system would allow full loading and staging of railcars within the leasehold.

The amount of material that can be handled annually by the terminal (throughput) is currently limited by the existing Permit to Operate (PTO; Facility Number N-153) issued by SJVAPCD in 2025. Although the proposed project would increase the terminal's operational capacity, total throughput would remain within existing SJVAPCD permit limits. The proposed improvements would allow the terminal to operate more efficiently and better meet regional demand for cement and supplementary cementitious materials (SCMs) while enhancing dust control through modernized equipment.

Materials handled at the terminal would be distributed to various downstream users and facilities, which may vary based on market conditions. This DEIR does not evaluate indirect effects associated with downstream concrete production (e.g., increased concrete plant activity or regional construction), because details regarding such uses are unknown and any analysis would be speculative, not reasonably foreseeable, and infeasible.

Figure 1
Vicinity Map



Figure 2
Existing Conditions and Elements

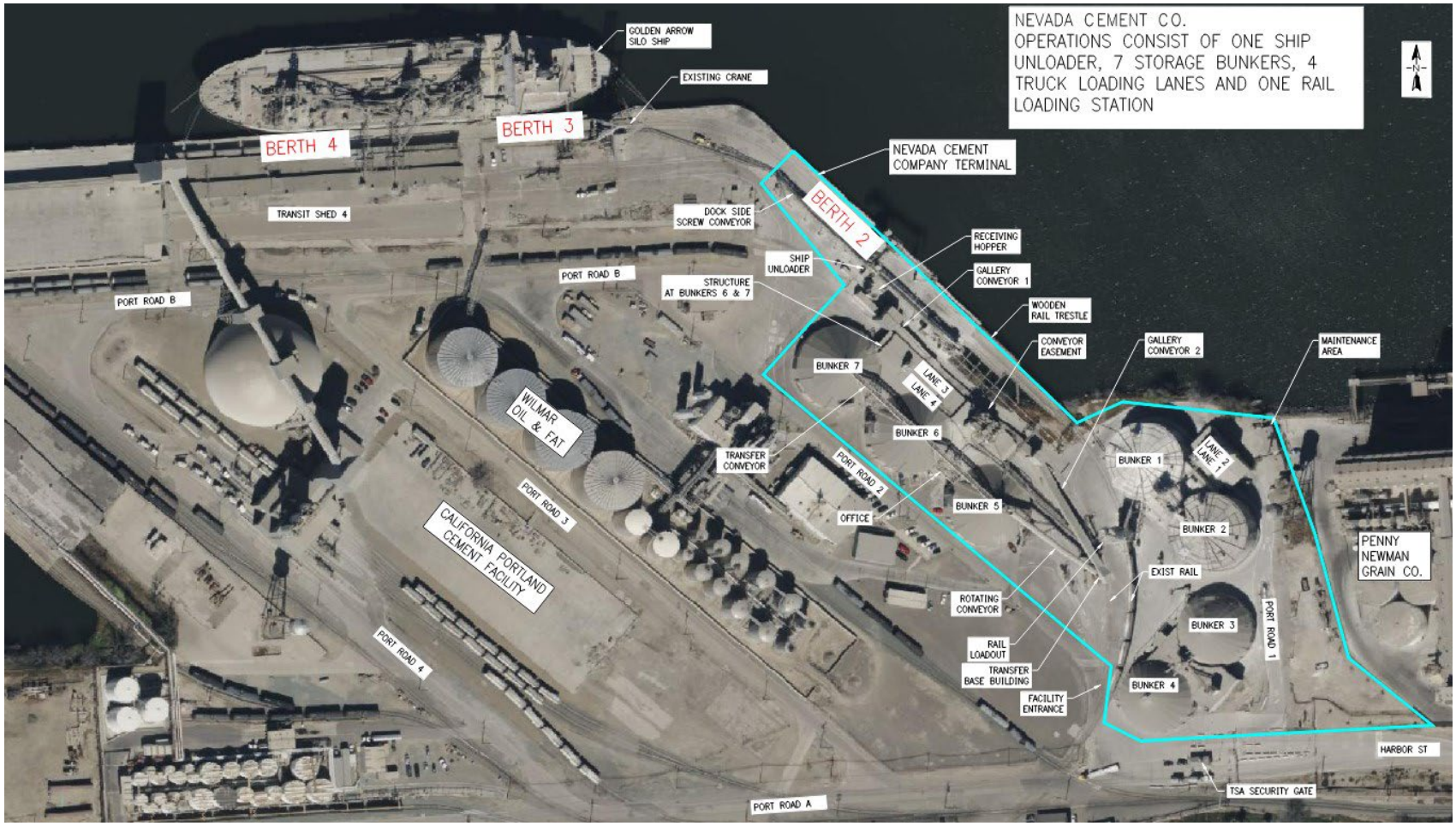
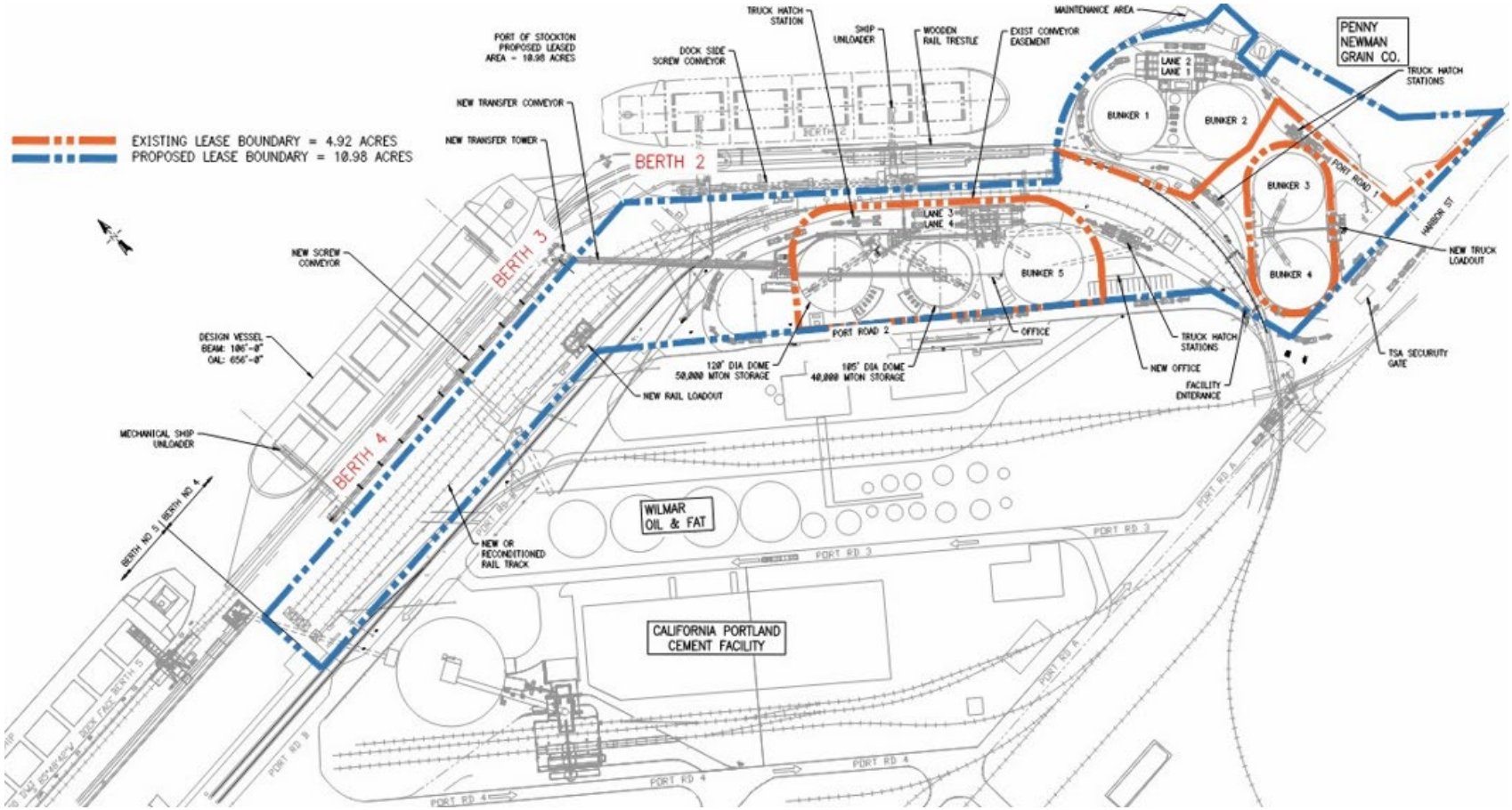


Figure 3
Existing and Proposed Leasehold Boundary



2.1.1 Project Background

Concrete is a primary construction material used in commercial, industrial, infrastructure, and residential development. It is composed of water, aggregate (rock, sand, or gravel), and cementitious materials, which act as the binding agent. Cementitious materials, including Portland cement and supplementary materials such as fly ash and GGBFS, are in high demand in Northern California.

The terminal has received, stored, and shipped cementitious materials to the local Stockton area and regional Northern California construction industry for over 35 years. The terminal was recently owned and operated by Lehigh Hanson; it was subsequently acquired by Martin Marietta Materials and then by Nevada Cement in 2023. The facility does not produce cementitious materials or concrete and does not handle aggregates; the terminal is a transloading facility only. Cementitious material is received via ship at the terminal, unloaded, and then stored at the terminal before being shipped to the local and regional market by truck and rail.

Cementitious materials are typically transported in bulk via ships, barges, railcars, and trucks. Because these materials react with water, handling systems are enclosed to prevent moisture exposure and control dust emissions. Enclosed mechanical and pneumatic conveying systems with dust filtration are commonly used to protect materials and minimize emissions during transfer.

The existing terminal infrastructure is aging and undersized, limiting operational efficiency across vessel unloading, material storage, truck and rail loading, and on-site rail movements. Berth 2 cannot fully accommodate today's larger bulk vessels, requiring frequent repositioning and relying on an unloader with insufficient reach, which prolongs unloading times, increasing labor requirements, operational emissions, and fugitive dust generation. The proposed project would address these constraints by installing a modern high-capacity unloader at Berth 3/4, constructing a 50,000-metric-ton storage dome with automated reclaim systems, upgrading truck and rail loading equipment to increase throughput and reduce idling, and replacing inadequate trackage with a consolidated rail plan that eliminates multiple daily switches and improves overall efficiency.

2.1.2 Project Need and Objectives

Pursuant to the CEQA Guidelines and 14 CCR 15124, a "statement of the objectives sought by the proposed project" must be provided as part of the project description in an EIR. The proposed project's goal is to upgrade the existing terminal to continue and further extend Nevada Cement's ability to meet customer demand in Northern California's cementitious materials market.

To accomplish this goal, the following key project objectives would be achieved:

- Improve and modernize the terminal to increase cementitious material throughput, up to existing permit limits, and meet regional demand for reliable cementitious material in Northern California.

- Upgrade the terminal to improve operational efficiency, optimize power use, enhance environmental controls, and ensure safe and efficient handling of cementitious materials.
- Upgrade Berth 3/4 to support new ship unloading equipment, comply with current design standards, and extend the useful life of the berth structure.
- Maintain and continue terminal operations to support the ongoing distribution of cementitious materials to the regional market.
- Modify and extend the lease with the Port to support the proposed improvements.

2.2 Environmental Setting

2.2.1 California Environmental Quality Act Baseline

CEQA Guidelines Section 15125 requires that an EIR describe the physical environmental conditions in the vicinity of the proposed project, which generally serve as the baseline for determining the significance of environmental impacts. For this DEIR, the baseline consists of existing physical conditions and ongoing terminal operations at the time the NOP was circulated.

2.2.2 Regional Setting

The Port is located approximately 75 miles east of San Francisco and 40 miles southeast of Sacramento. The Port is located within the City's urban core, which is characterized by a mix of heavy industrial uses with limited landscape features, older residential neighborhoods, neighborhood commercial shopping centers, and a variety of other commercial and industrial parcels. The Port is bisected by the San Joaquin River (within which is the Stockton Deep Water Ship Channel [DWSC]) and is subsequently divided into the East Complex and the West Complex (Rough and Ready Island). The Port leases property for a variety of industrial and marine tenants on both Complexes, with more liquid and dry bulk on the East Complex and more warehouse tenants on the West Complex.

The East Complex, where the project is proposed, encompasses approximately 680 acres bounded to the north by the Stockton DWSC and turning basin; to the east and south by the Port's Public Beltline Railroad main lead and Atchison, Topeka, and Santa Fe Railroads; and to the west by the San Joaquin River. The surrounding area is characterized by the presence of liquid storage tanks, maritime terminals, cementitious materials storage structures, grain silos, railroad facilities, large storage buildings, and stockpiles of various commodities that are not associated with the Proposed Modernization Project. The City's 2040 General Plan (adopted by the City in 2018) designates the project site for industrial use, and the zoning classification of the project site and surrounding parcels is PT, IG, or Unzoned (UNZ).

2.2.3 Project Setting

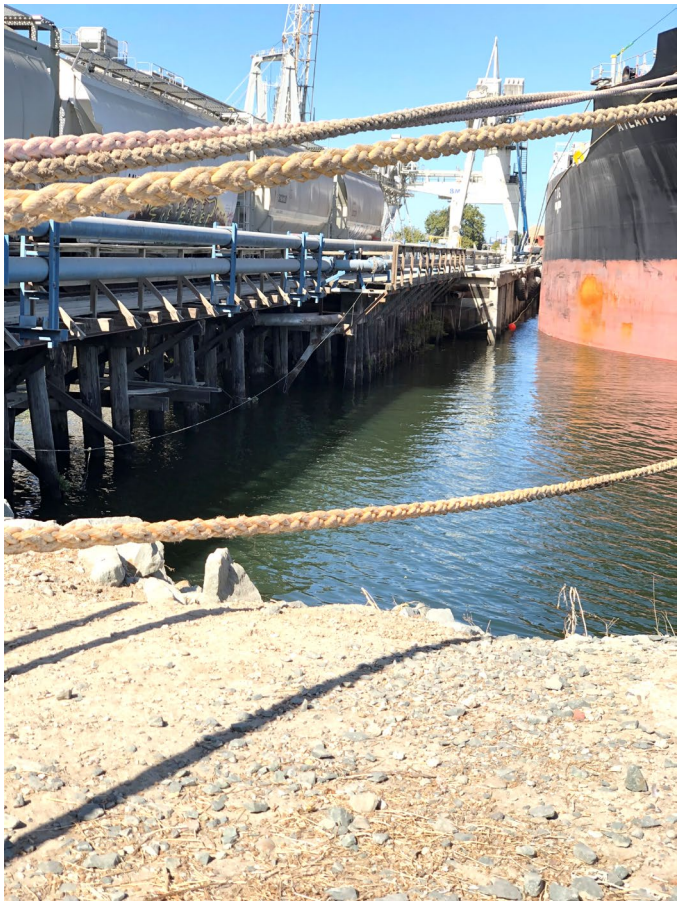
Nevada Cement's existing terminal is located in the northeast corner of the Port. It is bound by the San Joaquin River, Port Road A, Port Road 1, and Port Road 2, north of Washington Street (Figure 1). Existing rail facilities used by Nevada Cement are located on or adjacent to the terminal and just north of Port Road A between Berth 2 and Port Road 2. Berth 3/4 is currently occupied by the *Golden Arrow*, a silo ship owned and operated by CalPortland that functions as a floating cementitious material handling terminal and supports truck-loading operations. Immediately adjacent uses include Penny Newman, a bulk grain facility, to the east; Wilmar Oils and Fats to the south; and CalPortland Cement farther to the south. Residential neighborhoods are located to the south of Washington Street. A business park is located north of the site across the San Joaquin River. The proposed project area comprises parts of Berth 2 dock structure, Berth 3/4 dock structure, and other terminal infrastructure. Berths 2 and 3/4 are designated as public access berths; therefore, the immediate dock structure areas may be used by multiple tenants at the Port to unload goods.

2.2.3.1 Berth 2 Dock Structure

The existing Berth 2 is a concrete dock approximately 540 feet in length, supported by nearly 1,000 timber piles beneath concrete beams and a concrete subdeck (Photograph 1). Concrete columns and beams support key operational components, including existing railcar rails, ship unloader gantry rails, the main platform deck, and the existing ship unloader itself (Photograph 2). Originally constructed in the 1930s, the dock was designed to accommodate vessels with a maximum capacity of 35,000 deadweight tons (DWT), which was standard at the time.

The existing ship unloader on Berth 2 is nearly 40 years old and was designed for smaller vessels. The ship unloader is subject to operational limitations as it has limited horizontal and vertical reach, making it undersized for modern bulk carriers. The restricted arm length prevents efficient access across wider holds, requiring vessels to be repositioned to achieve full cargo discharge. These limitations to horizontal and vertical reach can result in extended unloading times and hold-cleanup durations, increased labor requirements, higher emissions from prolonged vessel activity, and greater fugitive dust generation from manual cleanup of the ship's holds.

Photograph 1
Existing Berth 2 Dock Structure



Photograph 2
Existing Ship Unloader and Conveyor



2.2.3.2 Berth 3/4 Dock Structure

Berth 3/4 is a 920-foot concrete dock supported by nearly 1,700 timber and concrete piles (Photograph 3). These piles support concrete beams and a concrete subdeck, whereas concrete columns and beams carry railcar rails, crane gantry rails, the main platform deck, and Transit Shed 4. Transit Shed 3, which served Berth 3, has already been removed.

CalPortland currently owns and operates the *Golden Arrow*, a silo ship that is permanently moored at Berth 3 and functions as a floating cementitious material handling terminal that supports truck-loading operations. CalPortland plans to relocate the *Golden Arrow* outside the Port. Construction sequencing would be coordinated with relocation of the *Golden Arrow*. If relocation does not occur as anticipated, construction timing and phasing may be adjusted accordingly.

Photograph 3
Berth 3/4 Showing *Golden Arrow* and Equipment



2.2.3.3 Other Terminal Infrastructure

The existing terminal includes seven concrete-walled storage bunkers (Photograph 4 provides an example of one of the storage bunkers) as well as one elevated steel tank which is used for a railcar loading station (Photograph 5). The terminal includes two truck loading stations, each with two lanes (for a total of four truck loading lanes). Photograph 6 presents one of the two loading stations. The current rail infrastructure includes tracks situated atop a wooden trestle that spans from the landside to Berth 2. This trestle structure has been downgraded and is now only rated to support the passage of empty railcars. Additionally, placing railcars on Berth 2 is restricted due to the potential disruption of regular berth operations. As such, the existing rail infrastructure supports limited operations.

In addition to storage and loading infrastructure, the terminal contains various operational buildings that house administrative offices, employee facilities, electrical equipment and control rooms, maintenance shops, and storage areas (Photograph 7). The site also includes truck traffic routes and limited rail operations that connect with the existing Port road and rail systems.

Photograph 4
Existing Cementitious Material Storage Bunker



Photograph 5
Existing Railcar Loadout



Photograph 6
Existing Truck Loading Station



Photograph 7
Nevada Cement Company Office Building Rail Operations



2.3 Existing Terminal Operations

Nevada Cement's existing terminal receives, stores, and ships cementitious materials to supply the construction industry in the local Stockton area and regional Northern California market. Materials are unloaded from the ship by a dock-mounted ship unloader at Berth 2 and transferred in a fully

enclosed existing pneumatic conveying system to seven existing storage structures at the terminal. The storage structures are concrete walled with various types of roofs, including timber, steel, and aluminum. There is also one elevated steel tank that holds products associated with the rail loadout.

The maximum storage capacity for cementitious materials in storage structures is currently approximately 94,800 tons.[1] The approximate capacity breakdown is as presented in Table 3.

Table 3
Storage Capacity

Storage Structure	Capacity (tons)
Bunkers 1 and 2	27,500 each; 55,000 total
Bunkers 3 and 4	6,600 each; 13,200 total
Bunkers 5, 6, and 7	8,800 each; 26,400 total
Steel Tank	200
Total	**94,800**

Cementitious materials are reclaimed from storage structures and transferred to truck or rail loading stations using a combination of automated and manual systems. Bunkers 1 and 2 are equipped with automated aerated floor systems that allow material to be discharged directly from the base of the bunkers into the conveying system. In contrast, Bunkers 3 through 7 rely on manual reclaim using front-end loaders and other equipment to feed materials into pneumatic transport systems. In all cases, materials are conveyed to truck or rail loading stations using enclosed pneumatic systems.

The terminal includes several pieces of yard equipment to support operations, including front-end loaders, a sweeper, and a rail-mounted yard wagon used to position railcars. Air pollution control devices are installed throughout the terminal to control emissions from material handling activities.

Truck traffic enters the terminal through the East Gate and is directed to designated loading stations. After loading, trucks exit via internal Port roads and connect to the surrounding roadway network. The terminal typically handles approximately 50 trucks per day under existing conditions. Truck idling times are generally less than 5 minutes but may vary depending on operational conditions and arrival patterns.

Railcars are delivered to the terminal by the Central California Traction Company (CCTC) via the existing rail network. Railcars are positioned within the terminal for loading and are then dispatched

[1] The actual amount of material received and shipped is regulated by the San Joaquin Valley Air Pollution Control District permits, not by terminal capacity, as further described in Section 3.2.

following loading. Rail operations are constrained by existing infrastructure limitations, including restricted track capacity and operational conflicts with berth activities.

The terminal operates on a variable schedule depending on vessel arrivals and customer demand. Ship unloading typically occurs continuously (24 hours per day) until completion, which may take approximately 5 to 7 days per vessel. Truck and rail loading operations generally occur over extended daily periods and may include overnight operations. The terminal typically operates Monday through Saturday, with occasional Sunday operations.

2.3.1 Existing Throughput

For port terminals, operational activity is commonly described in terms of throughput, which represents the volume of material moving through the facility over time. Throughput can vary based on market conditions and operational factors and therefore is typically calculated over a period of time, generally the preceding 12 months or calendar year, whichever is more indicative of normal operations. The highest 12-month period of shipping at the terminal occurred from 2022 to 2023, during which the terminal handled 751,432 tons of material. For this analysis, baseline throughput is based on the most recent 12-month period of available data under Nevada Cement's ownership, as shown in Table 4.

As noted, throughput at the terminal is limited by the existing PTO; Facility Number N-153, issued by SJVAPCD in 2016, which allows for 2.628 million tons of cementitious material to be imported into the terminal per year via ship or rail, subject to a maximum of 18,000 tons per day. Per the permit, the terminal is allowed to export from the terminal a combined 2.19 million tons per year by truck and rail shipping, subject to a maximum of 6,000 tons of cementitious material per day. Within these permitted export throughput limits, the existing terminal can handle any combination of a maximum of approximately 230 trucks per day, or 52 railcars per day, provided that 6,000 tons per day is not exceeded. Currently, the terminal does not operate at the permitted throughput level, and the maximum throughput of the terminal has never exceeded 1.0 million tons per year.

Table 4 presents the modal movements and throughput levels for the subject 12-months' time at the Nevada Cement terminal. As shown in Table 4, the terminal imported 326,712 tons of product by ship in the subject 12-month time period and exported 341,003 tons of product by truck and rail for a total of 667,715 tons. The discrepancy in a larger tonnage exported vs. imported is due to the fact that product is stored for a period of time and more product is available. As noted, Berth 3/4 is used to dock the silo ship *Golden Arrow*, which serves as a floating cementitious material terminal and was used as a supplemental terminal by Nevada Cement during the 12-month period. *Golden Arrow* volumes are included in the volumes presented in Table 4 (as discussed in Section 2.2, the *Golden Arrow* is not part of the proposed project).

Table 4
Baseline (2023) Modal Moves and Volumes (Annual) Nevada Cement

Mode	Modal Moves	Tons
Import		
Railcars in[1]	0	0
Ship calls[2]	10	326,712
Export		
Trucks out[3]	10,833	281,654
Railcars out[1]	520	59,349
Rail trips	52[4]	NA

Notes:

1. Rail calls are expressed in one-way moves assuming 114 tons per railcar for cement and 105 tons for SCMs. Assumes an average of 10 cars per train for each move.
2. Assumes a ship volume of 35,250 short tons per ship.
3. Trucks are expressed in number of trucks with two one-way moves per truck at 26 tons per truck.

2.3.2 Existing Operational Constraints

The existing terminal is constrained by aging infrastructure and operational limitations that reduce efficiency and limit the ability to accommodate modern vessel and material handling requirements.

Berth 2 Limitations. Berth 2 was originally designed to accommodate vessels up to approximately 35,000 DWT. Larger bulk vessels are now common at the Port; however, Berth 2 remains the primary operational unloading berth. The berth length and configuration do not fully accommodate these larger vessels, which can extend beyond the berth and require repositioning during unloading. In addition, the existing ship unloader has limited horizontal and vertical reach, restricting its ability to efficiently access vessel holds. These constraints can result in longer unloading times, increased labor requirements, higher operational emissions, and greater fugitive dust generation associated with extended unloading and manual cleanup activities.

Material Handling and Storage Constraints. The terminal's existing storage and material handling systems are limited by the configuration and capacity of the seven existing bunkers and associated equipment. Bunkers 3 through 7 require manual reclaim using mobile equipment, which reduces operational efficiency compared to automated systems and increases reliance on additional equipment and handling steps. Existing truck and rail loading systems are also constrained by older, lower-capacity equipment, which can limit throughput rates and contribute to longer loading times and increased idling during peak operations.

Rail Infrastructure Constraints. The existing rail system is constrained by limited trackage and the presence of a wooden trestle that is currently rated only for empty railcars. In addition, the use of rail infrastructure at Berth 2 is restricted due to potential conflicts with vessel operations. These

limitations require multiple daily switching movements and reduce the efficiency of railcar staging and loading operations within the terminal.

Operational Efficiency Constraints. Collectively, these infrastructure limitations result in inefficiencies across terminal operations, including vessel unloading, material storage, and truck and rail distribution. These constraints limit the terminal's ability to operate efficiently, increase operational complexity, and reduce flexibility in responding to changing market demands.

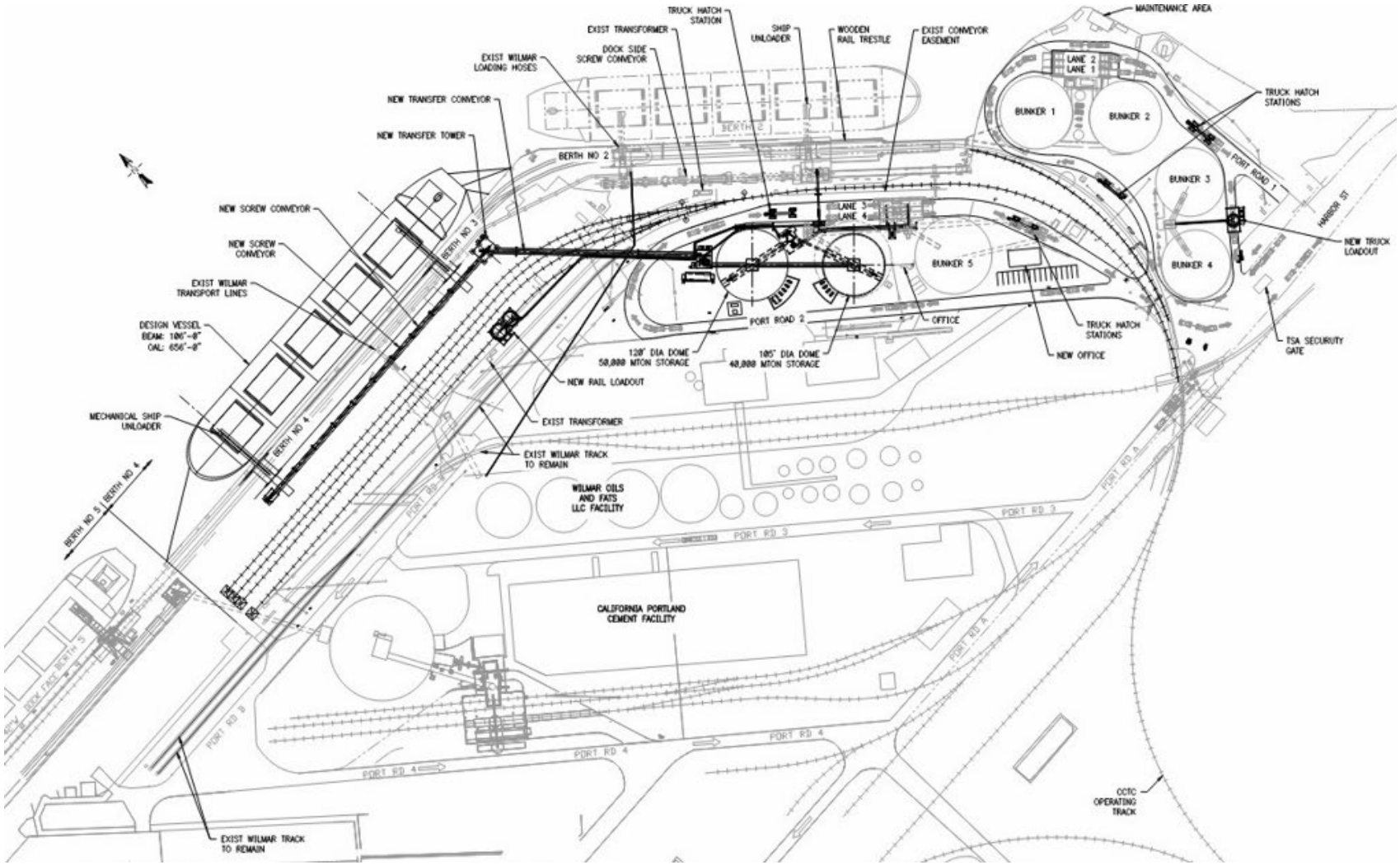
2.4 Proposed Project Construction

Proposed construction would include the following primary elements (shown in Figure 4). Specifically, project construction would consist of the following activities, which are described in detail in the noted sections and shown in Figures 5 through 11:

- Demolition and Removal Activities (Section 2.4.1)
- Berth 3/4 Rehabilitation (Section 2.4.2)
- New Ship Unloader and Conveyance System Installation (Section 2.4.3)
- Upland Facility Improvements (Section 2.4.4)
- Construction Schedule (2.4.5)

Materials resulting from demolition would be disposed appropriately, and these demolition materials would be recycled wherever possible: asphalt and concrete materials would be transported to a local recycling facility, steel materials would be taken to a local scrap yard, clean debris would be recycled when feasible, and miscellaneous debris would be disposed of at a local landfill (North County Recycling Center and Sanitary Landfill or Foothill Sanitary Landfill). Construction activities would comply with all applicable ARB mobile source requirements.

Figure 4
Proposed Project – Site Plan



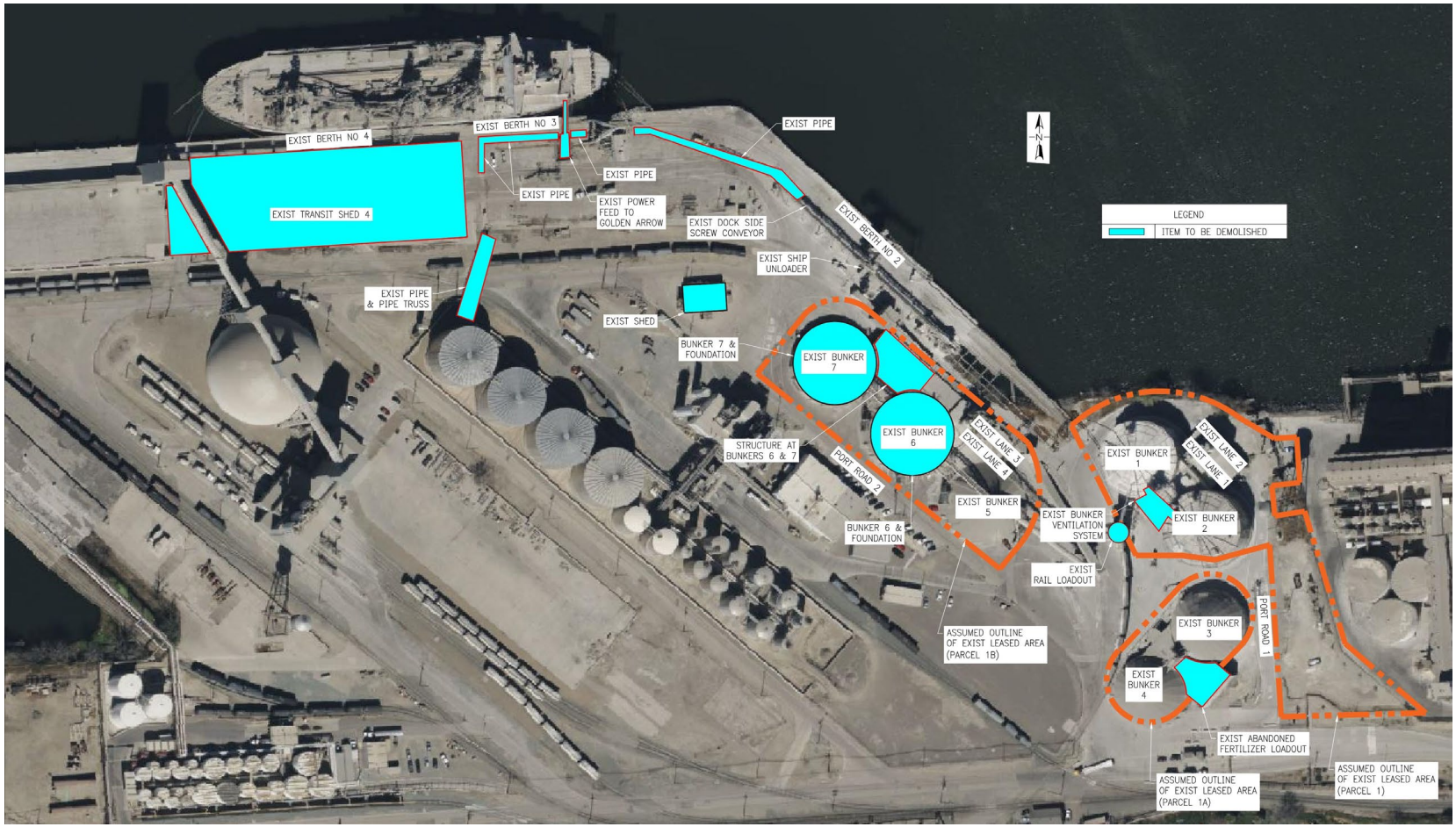
2.4.1 Demolition and Removal Activities

The proposed project would require removal of existing structures within the leasehold area to accommodate new upland and berth improvements (Figure 5), including the following:

- Shed near Bunker 7
- Bunker 7, including its foundation, floor slab, and below-grade tunnel
- Bunker 6, including its foundation, floor slab, and below-grade tunnel
- Shed cover between Bunkers 6 and 7
- Rail loading tank near Bunkers 1 and 2
- Dust filter and associated structural supports between Bunkers 1 and 2
- Shed cover between Bunkers 3 and 4
- Liquids-handling pipeline (removed and repositioned)
- Transit Shed 4, including the landside column support piers and foundations and all above-deck structures (e.g., cladding, doors, and ancillary features)

In addition to the structures listed above, various miscellaneous features and equipment, including transformers, light poles, access ramps, utilities, and others, would be removed or demolished. Treated wood piles, if encountered, would be stored on plastic tarps before being disposed of at a Class 2 landfill, such as Foothill Sanitary Landfill and North County Recycling Center and Sanitary Landfill. Navy Drive and West Washington Street are anticipated to be the primary public haul routes into and out of the Port. Port Road A and Port Road 13 would be the primary intra-port access to the site via the main gate.

Figure 5
Demolition Plan



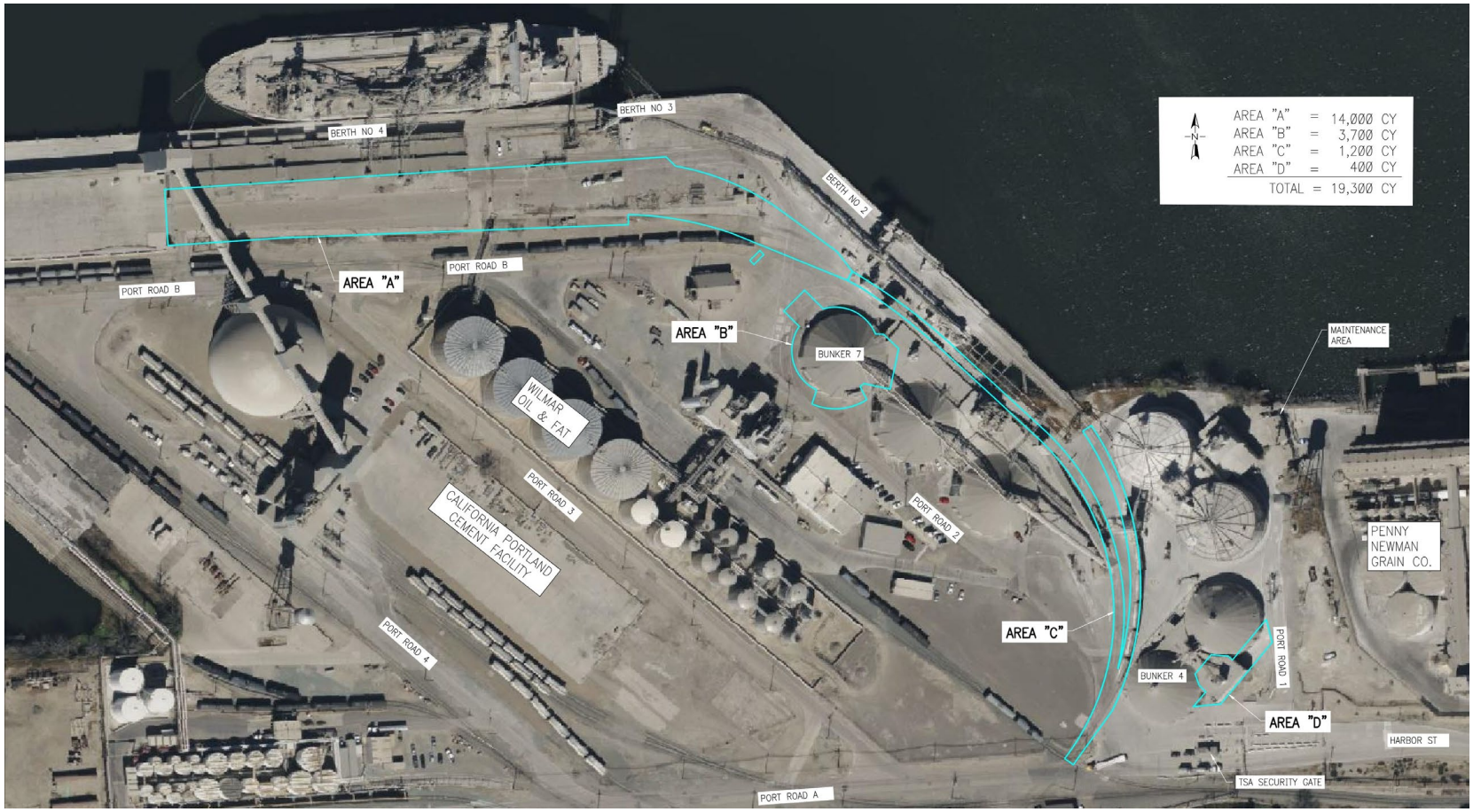
Transit Shed 4, which is partially located on the Berth 3/4 dock structure, would be demolished, along with its landside column support piers and concrete foundations to accommodate the installation of the new Berth 3/4 improvements, a new ship unloader, material handling systems, and the new on-site rail yard. Currently, Transit Shed 4 serves as the truck loading shed for the *Golden Arrow* silo ship. The current owner of *Golden Arrow* would be responsible for removing all ancillary landside equipment associated with its operations. The demolition of Transit Shed 4 would include removal of all above-deck structures, including cladding, doors, and ancillary features. Pre-demolition surveys would be conducted to identify any hazardous materials in or around Transit Shed 4. Identified hazardous materials would be removed prior to general demolition. Material handling for the demolition would follow the same procedures as outlined above, prioritizing recycling and proper disposal.

Additionally, demolition activities would include the complete removal of the floor slabs and below-grade concrete columns and foundations of Transit Sheds 3 and 4 (approximately 90 feet by 900 feet in plan area). These activities would be fully landside of the existing dock structure's retaining wall and would not involve any overwater work conditions.

Demolition activities would result in ground disturbance and grade modifications, as depicted in Figures 5 and 6. A total of approximately 19,300 cubic yards of ground disturbance is anticipated as part of the proposed project, at a maximum depth of 5 feet below grade. Ground-disturbing activities may include the following:

- Clearing, grubbing, and grading
- Installation of pilings, piers, or footings
- Trenching or directional drilling for utilities
- Installation of utility vaults
- Any other excavation

Figure 6
Ground Disturbance Areas



2.4.2 Berth 3/4 Rehabilitation

Construction at Berth 3/4 would consist of a range of in-water and overwater enhancements, including the following:

- Installation of new steel and precast concrete support piles
- Construction of new concrete support beams
- Installation of new gantry rails
- Installation of a new ship unloader stowage mast anchor pad
- Installation of a new transfer tower foundation and precast concrete support piles
- New dock fenders
- Deck repairs
- Reinforcement of the existing rear retaining wall parallel to the Berth 3/4 face and construction of a new retaining wall at the intersection of Berths 4 and 5

Work would include excavation, pile installation, and structural modifications. Installation would occur using a vibratory hammer or a single impact hammer (depending on pile type, substrate conditions, and final engineering design) mounted to a crawler crane operating from the Berth 3/4 deck. If the existing dock structure cannot support this type of installation crane, a floating derrick barge would be used to drive these pilings and support the Berth 3 /4 construction.

Installation of piles below the mean higher high water (MHHW) line would be required for the Berth 3/4 rehabilitation. Installation would require cutting slots in the existing 8-inch-thick concrete deck at Berth 3/4 to accommodate pile driving. The installation of the battered steel-pipe piles along the dock's north face would necessitate the removal of certain existing concrete bracing beams. The final design would incorporate replacement bracing to maintain structural integrity. Structural evaluations have confirmed that the existing gantry rails on the eastern portion of Berth 3/4 are adequate to support the new unloader. Required modifications to Berth 3/4 include extension of gantry rails using new pilings, support beams, and rails, and installation of additional piles on the southeast portion of Berth 3/4 to support a new equipment transfer tower. Importantly, these improvements would occur within the footprint of the existing dock structure, with no increase in deck area.

Construction also includes installing new concrete beams and gantry rails, casting new deck sections to replace cutouts made for pile installation, and constructing new below-deck beams and braces connected to the existing dock structure, which would all occur above the MHHW line. The new gantry rails would extend the current system on Berth 3 and continue onto Berth 4, matching the existing gauge. The same deck slots used for pile installation would serve in constructing the below-deck beams. Once the piles are in place, the deck slots would be formed, dowels installed, and concrete poured to restore the deck surface. Forms for new concrete beams would be supported by the newly installed piles and existing below-deck structures. A hydraulic crane on the deck would

facilitate formwork and placement of the cast-in-place reinforced-concrete beams. The proposed project involves using approximately 300 cubic yards of concrete to construct the cast-in-place beams, to build the base pads and piers for the inbound material handling system on Berth 3/4, including the transfer tower, and to replace the deck over the installation slots.

In-water work includes pile foundation installation, pile installation, concrete rail support beams, and concrete deck formwork and would occur during the approved in-water work window. For Berth 3/4, in-water pile driving would occur over a maximum of approximately 86 workdays, assuming installation of up to two marine piles per day depending on pile type. These activities would be completed within the approved in-water work window, which extends up to 150 calendar days.

Up to 170 piles would be installed below the MHHW line for Berth 3/4:

- Seventy-five steel-pipe piles (24-inch diameter), driven at a battered angle just inside the front face of the dock structure of Berth 3/4
- Sixty-five precast concrete piles (16-inch square), installed vertically at the midsection of Berth 3/4 to support the ship unloader gantry rail beams, and
- Thirty precast concrete piles (16-inch square), installed to support the new material transfer tower

Although the piles would be located below the MHHW line, pile installation would occur from the existing Berth 3/4 deck or adjacent construction equipment, as applicable. Installation of the Berth 3/4 pilings would require cutting openings or slots in the existing 8-inch-thick concrete deck at Berth 3/4 to accommodate pile driving. After piling installation, concrete beams or pile caps would be constructed and tied into the existing structure, including closing the slot openings required for pile driving.

The 75 steel-pipe piles, driven at a battered angle, would require removal of certain existing concrete bracing beams, with replacement bracing incorporated into the final design.

The 30 precast concrete piles would be installed by creating openings along the south edge of the existing Berth 3 deck. These piles would be placed below the MHHW line, within the slope beneath the deck. The remaining 65 vertical precast concrete piles would be installed through the existing deck without interfering with the existing piles or dock structure.

No new dredging is proposed for this project. Maintenance dredging of dock areas at Berths 2 and 3/4 would continue to be performed by the Port in accordance with existing permits and would be separate from the proposed project.

Best management practices (BMPs) would be implemented to prevent debris from entering the water during the in-water and overwater construction activities. These measures include the following:

- Use of debris containment booms, floating debris screens, and/or absorbent booms beneath and around work areas
- Moored barges positioned to capture debris generated during in-water and overwater construction
- Immediate retrieval of any debris entering the water by personnel in workboats
- Use of tarps, tubs, or vacuums to catch sawdust, debris, and drips during small-scale overwater work

Material handling for the demolition debris and other construction-related waste would follow the same procedures as outlined in Section 2.4.1, prioritizing recycling and proper disposal.

2.4.3 New Ship Unloader and Conveyance System Installation

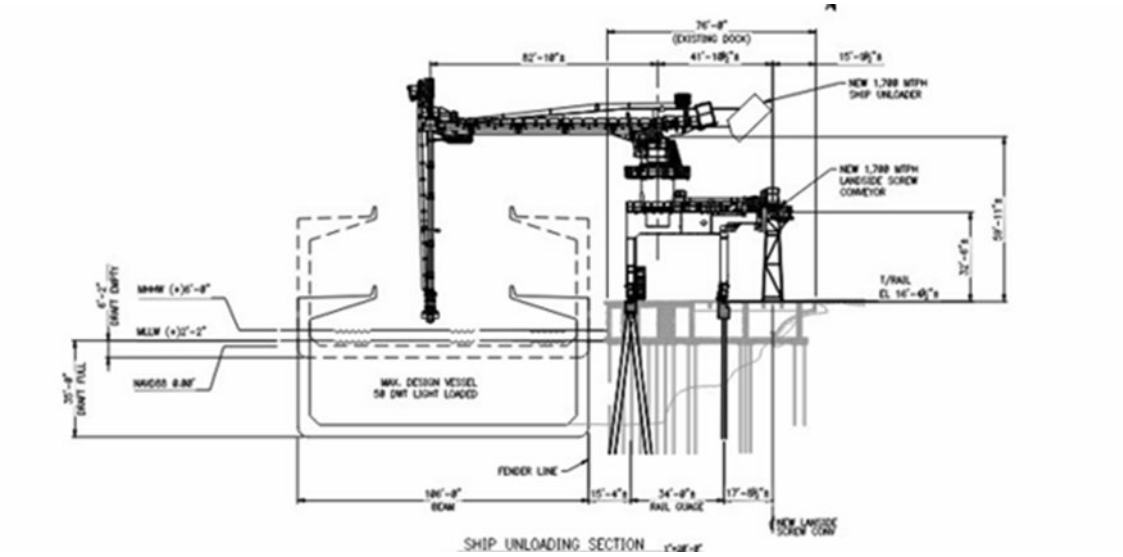
Following Berth 3/4 upgrades, a new ship unloader would be delivered to the site and installed on Berth 3/4 on the newly installed gantry rail along the dock parallel to the berth fender line, as depicted in Figure 7. This state-of-the-art ship unloader would be equipped with a completely enclosed conveying system and an onboard air pollution control device to minimize emissions during operations and would provide greater unloading and conveyance capacity than the existing ship unloading system. The increased equipment capacity would allow vessels to be unloaded more efficiently and would reduce vessel unloading durations but would not increase the terminal's existing permitted daily or annual throughput limits established by the SJVAPCD PTO.

The ship unloader components would be sourced from various international locations and delivered to the site in large, pre-assembled sections, including multiple shipping containers. Upon arrival, the unloader would be assembled on-site within a designated area of Berth 3/4, utilizing the existing and newly installed gantry rails aligned parallel to the Berth 3/4 face. The horizontal screw conveyor would be installed on elevated structural supports above and behind the dock's berth face to maintain uninterrupted dock access. The conveyor would end at a new dock transfer tower located at the southeast end of Berth 3. The installation of the ship unloader would also include a cover tensioning device frame and a tie-down stowage mast to secure the ship unloader's vertical arm when it is not in operation. All support structures associated with the ship unloader system would be located on the existing Berth 3/4 dock structure, utilizing new steel frames anchored to the deck.

The new unloader would be equipped with an enclosed conveying system, an onboard air pollution control device to minimize emissions during operations, and an electrical equipment room. The electrical equipment room would be constructed on Berth 3/4 to meet the increased power demands of the new ship unloader. The new unloader would be the primary receiving equipment for the terminal, with materials transferred via a new mechanical conveyor system to a proposed new

storage dome and existing Bunkers 5 and 6. Structural evaluations have confirmed that the existing gantry rails on the eastern portion of Berth 3/4 are adequate to support the new unloader. Required modifications to Berth 3/4 include extension of gantry rails using new pilings, support beams, and rails, and installation of additional piles on the southeast portion of Berth 3/4 to support a new equipment transfer tower. Importantly, these improvements would occur within the footprint of the existing dock structure, with no increase in deck area. The existing Berth 2 ship unloader would remain operational and capable of delivering cementitious materials from vessels docked at Berth 2 to the remaining six storage bunkers as a backup system during maintenance or downtime of the new primary unloader at Berth 3/4.

Figure 7
Berth 3/4 Ship Unloader Plan and Cross-Section



The dock transfer tower would contain a negatively vented transfer system connecting the dock conveyor to the inbound conveyance system. In addition, the new ship unloader would also require an electrical equipment room to meet the increased power demands of the ship unloader. The new transfer tower would have access stairs.

From the dock transfer tower, inbound material would be transferred via a fully enclosed and negatively vented screw conveyor supported on an elevated truss to provide clearance over the rail tracks, as depicted in Figure 8. The conveyor system would be supported by three steel bents positioned in the proposed rail yard area. In addition, the conveyor system would feature air pollution control devices installed at both ends of the screw conveyor. Transfer of material from the

screw conveyor would feed a negatively vented bucket elevator, supported by a structural steel tower adjacent to the north side of the proposed new storage dome.

2.4.4 Upland Facility Improvements

The proposed project also involves upland facility improvements, including replacing Bunkers 6 and 7 with new concrete storage domes, modifying the existing Lanes 3 and 4 truck loading stations, enhancing the existing rail infrastructure, adding additional rail trackage to improve on-site rail operations, constructing a new railcar loading station, and adding new foundations to support infrastructure.

2.4.4.1 Bunkers 6 and 7 Storage Dome Replacement

Existing Bunker 7, which currently has a storage capacity of 8,800 tons and is 130 feet in diameter and 58 feet tall, would be replaced with a monolithically constructed, vinyl-covered, steel reinforced-concrete storage dome. The new storage dome would have a capacity of 50,000 metric tons (MT), a diameter of approximately 120 feet, and a height of approximately 150 feet. The storage dome would be constructed entirely on land, on a foundation supported by 1,050 concrete piles, and would be equipped with air pollution control devices.

Plans also include the future replacement of Bunker 6, which has identical current dimensions to the current Bunker 7. The new storage dome that would replace Bunker 6 would have a capacity of 40,000 MT, a diameter of approximately 105 feet, and a height of approximately 150 feet. The storage dome would be constructed entirely on land, on a foundation supported by 730 concrete piles.

Installation of the new storage dome foundation systems and conveyance infrastructure would involve pile driving in upland areas over an approximate 5-month duration. The dome would be constructed using a positive pressure air-formed vinyl bladder with foam reinforcement. The structural walls of the storage dome would be built using conventional reinforcing steel covered with shotcrete. Once the exterior portion of the dome is complete, the positive pressure would be removed, and an interior tunnel would be installed to allow installation of air supply piping and valves. Imported fill, verified as clean per DTSC's 2001 Clean Imported Fill Material advisory, would be placed to form a sloped concrete floor. An aerated floor system would be installed, equipped with a computer-controlled valve and blower system to supply pressurized air to aerate the cementitious material and promote extraction flow. Equipment buildings housing operational systems, including blowers, would be constructed adjacent to the dome. These systems would require pile foundations, which are already accounted for in the total pile counts.

As noted previously, the entire inbound material handling and dome filling system would be enclosed and operated under negative pressure with air pollution control devices to provide venting. This system would be capable of distributing material to the future new dome replacing Bunker 6, as

depicted in Figure 8. The storage dome replacing Bunker 6 would be equipped with a fully automated cementitious material extraction system. This system would include a sloped, aerated floor that channels material into an enclosed, negatively conveying network. This network would serve multiple distribution destinations and incorporate independent air pollution control devices for each reclaim and distribution subsystem.

2.4.4.2 New Truck and Rail Loadout Material Handling Systems Installation and Integration with Existing Infrastructure

The proposed project includes new, higher-capacity material handling equipment that would deliver cementitious material to the surge bins to improve the efficiency of loading trucks. There is an existing truck loading station adjacent to Bunkers 5 and 6, constituting truck loading Lanes 3 and 4. This loading station would allow the four loadout tanks to be fed by the existing pneumatic transfer system from Bunkers 5 and 6. In addition, the automated dome extraction system would discharge into two distinct material handling systems, one mechanical for feeding the existing four Lanes 3 and 4 tanks for truck loading, and one pneumatic, which would deliver material to the new railcar loadout station.

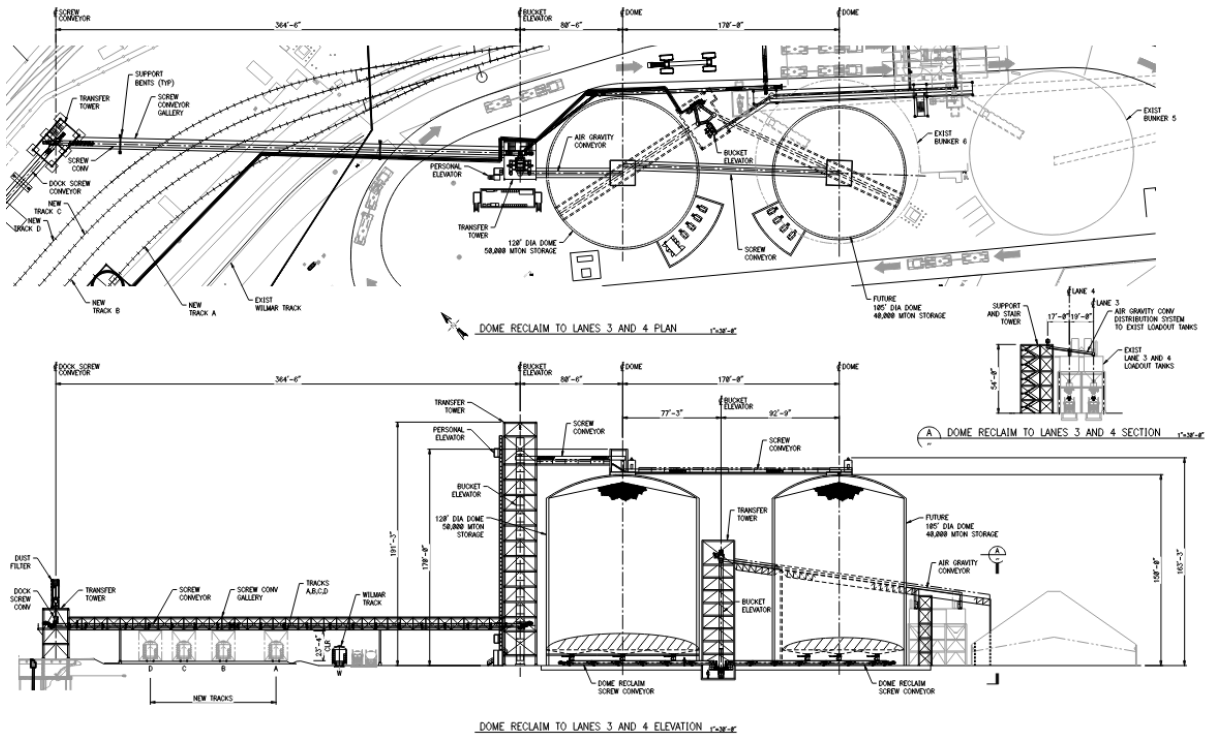
The automated dome extraction system would discharge into two distinct material handling systems: one mechanical (truck loadout), and one pneumatic (rail loadout):

- **Truck Loadout: Lanes 3 and 4.** The existing four elevated loadout surge tanks would be fed by material handling systems from either the new dome(s), or, as they are currently fed from Bunkers 5 and 6. The existing single-deck truck scales at Lanes 3 and 4 would be replaced with new split-deck scales. This would enable separate weighing and loading of each pod of dual-pod truck trailers, enhancing precision and operational flexibility. A new enclosed and negatively vented bucket elevator would transport material from the dome extraction system to a network of new elevated air gravity conveyors. These conveyors would distribute material to any of the four existing truck loadout surge bins. The existing air pollution control systems currently used for pneumatic transport to the loadout tanks are sufficient for the new system; therefore, no changes to these systems are anticipated.
- **Truck Loadout: Bunkers 3 and 4.** The existing truck loading shed would be removed, making way for the installation of a new Truck Loading Station in approximately the same location. The reclaim systems for Bunkers 3 and 4 would be modified to support this updated operation. These revised reclaim systems would utilize the existing pneumatic transport infrastructure to deliver the cementitious materials to a new truck surge tank, which would feed the new loading station. This improvement would streamline material handling operations and enhance the site's flexibility in managing multiple material types.
- **Railcar Loadout.** The new railcar loadout system would be fed by a new pneumatic transport line, which would deliver material to two newly proposed elevated surge tanks located at the

railcar loading station. These tanks would be equipped with air pollution control systems to manage emissions generated during pneumatic transport.

All new equipment would be enclosed and operated under negative pressure, utilizing either existing or new dust filtration systems to ensure compliance with air quality standards.

Figure 8
Dock to Dome Conveyance and Storage



The new upland facility improvement would integrate with existing infrastructure. Specifically, Bunker 5 would remain unchanged, and Bunker 6 would remain in service during the initial construction phase to provide necessary overflow buffer storage that allows the terminal to continue operating. Bunker 6 would be removed and replaced in a later phase, after initial construction is complete. Through construction and subsequent operations, the existing pneumatic transport systems associated with Bunkers 5 and 6 would remain functional. The new dome (Bunker 7) would operate independently using the newly described reclaim and distribution systems. All three storage structures (Bunkers 5 and 6 and the new dome) would have the capability to transfer material to truck loading Lanes 3 or 4.

2.4.4.3 Truck Scales Replacement

The existing single-deck truck scales at Lanes 3 and 4 would be replaced with new split-deck scales. This would enable separate weighing and loading of each pod of dual-pod truck trailers, enhancing precision and operational flexibility.

A dual-pod truck trailer, sometimes referred to as a tandem compartment trailer or dual-compartment tanker, is a type of truck trailer that has two separate compartments or "pods" for carrying cementitious materials.

2.4.4.4 Rail Infrastructure Enhancements

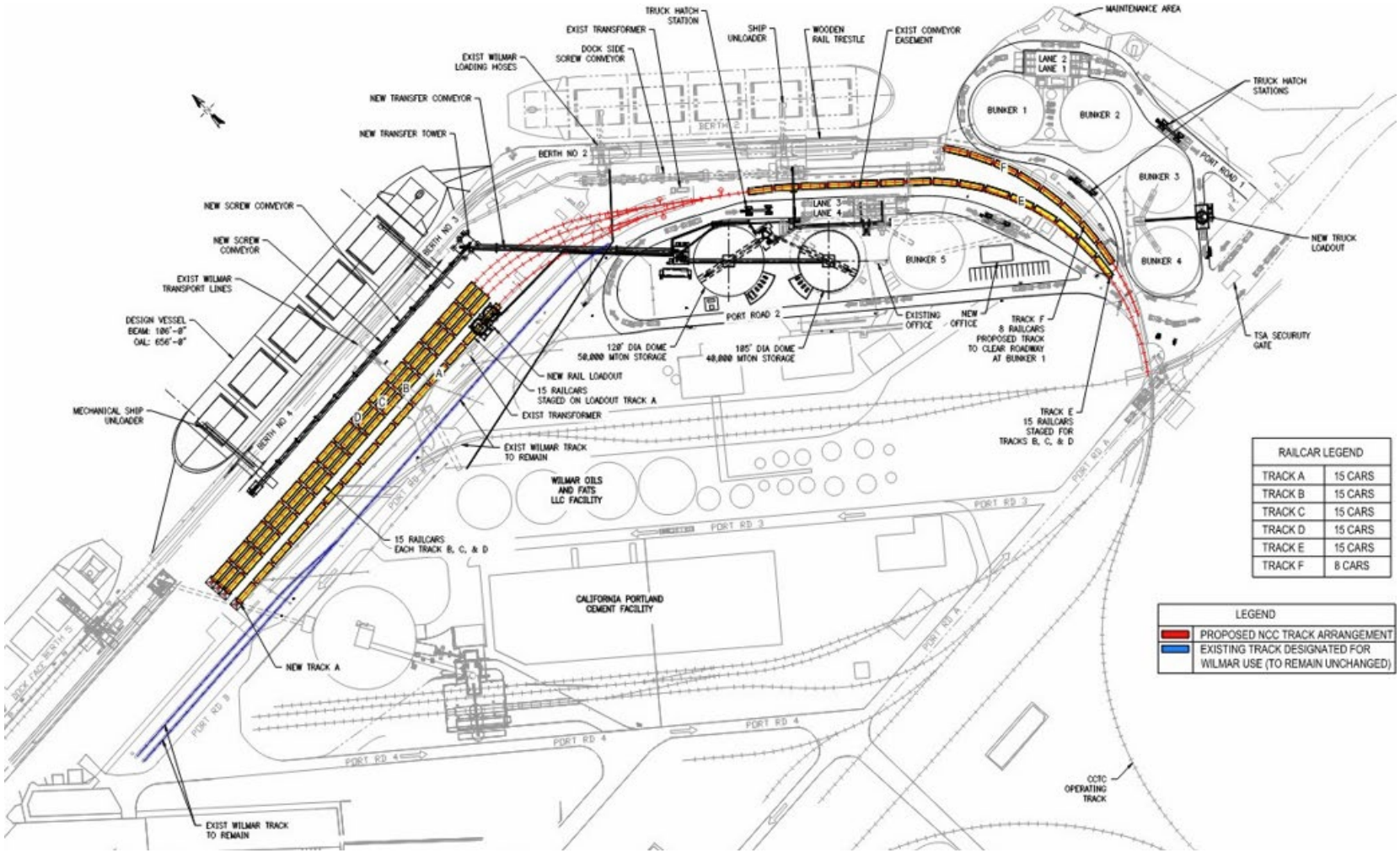
The existing terminal site faces operational limitations due to insufficient rail trackage. As shown in Figure 9, the current rail infrastructure includes tracks situated atop a wooden trestle that spans from the landside to Berth 2. This trestle structure has been downgraded and is now only rated to support the passage of empty railcars. Additionally, placing railcars on Berth 2 is restricted due to the potential disruption of regular berth operations. These constraints necessitate frequent railcar movements and multiple daily switching operations by the Port's industrial switch provider, resulting in inefficiencies and increased operational complexity.

The proposed rail design would relocate all railcar handling within the terminal leasehold, reducing switching requirements and improving operational efficiency (Figure 10). This reconfiguration would significantly streamline rail operations, reducing the required number of switches to a single inbound and outbound movement per day by the Port's industrial switch provider.

Figure 9
Existing Terminal Railcar Operations



Figure 10
Proposed Terminal Railcar Flow



2.4.4.5 New Railcar Loadout Station Construction

A new railcar loadout station would be constructed north of Port Road B and south of Berth 3/4. The facility would be located adjacent to the proposed rail yard and would support efficient handling of both empty and loaded railcars within the terminal.

The station would accommodate loading of up to 45 railcars per day, subject to rail service availability from the CCTC. The system would include two 500-ton capacity elevated surge tanks supplied by an enclosed pneumatic transfer system from the storage dome reclaim system. Railcars would be loaded using an enclosed, negatively vented telescoping loading spout designed to minimize dust emissions. An automated rail scale would be installed beneath the loading spout to ensure accurate loading. The anticipated loading rate is approximately two railcars per hour.

Photograph 8
Dust-Free Railcar Loading with Telescoping Loading Spout Example



Source: Vortex 2026

2.4.4.6 Rail Improvements

The proposed project includes rail infrastructure improvements within the leasehold area south of Berth 3/4 to improve operational efficiency and reduce switching requirements. Improvements include rehabilitation of the existing industry lead track connecting to the Port's rail system,

construction of a new loading track capable of accommodating approximately 15 railcars, and upgrades to staging and storage tracks.

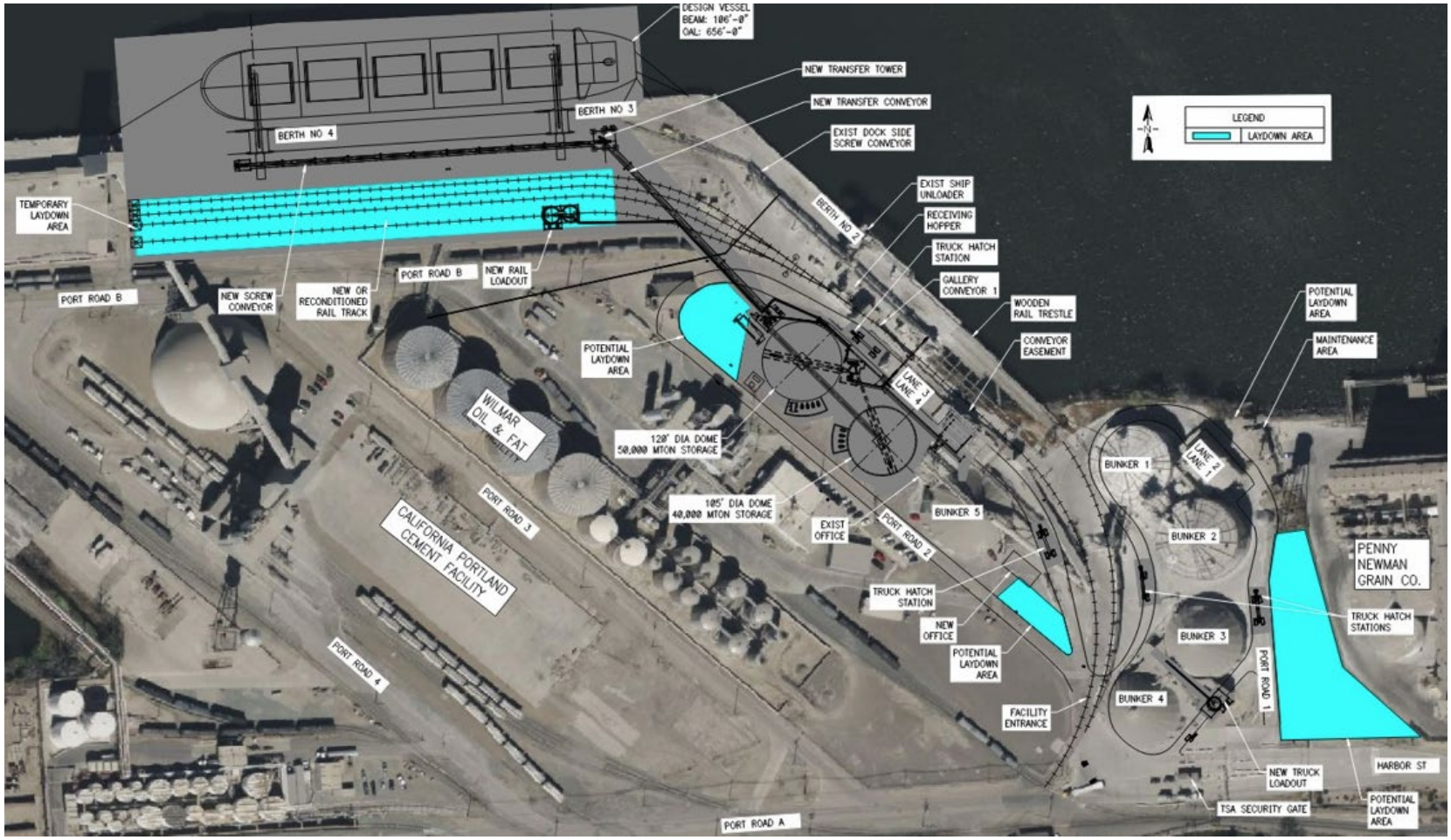
The improved rail layout would allow delivery and removal of railcars in larger groupings, reducing the number of switching movements required and improving overall operational efficiency. The proposed project would also consolidate railcar handling within the leasehold and eliminate the need for rail operations on Berth 2.

2.4.4.7 Installation of New Foundations to Support Structures

New foundations would be constructed to support the proposed storage domes and associated infrastructure. Installation would require approximately 1,856 reinforced-concrete piles (16-inch square) in upland areas. Of these, approximately 1,718 piles would be located within 200 feet of the waterline, and approximately 138 piles would be located more than 200 feet from the waterline.

Landside pile driving would occur over an estimated duration of approximately 99 to 184 days within an overall construction period of up to 8 months. Construction staging and laydown areas would be located within the terminal, as shown in Figure 11, and would be coordinated to minimize disruption to ongoing operations.

Figure 11
Laydown and Staging Areas



2.4.4.8 Berth 2 Barge Loading System Installation

The proposed project includes installation of infrastructure at Berth 2 to support future barge loading operations. This would include pneumatic transfer piping and associated equipment integrated with the terminal's material handling system. All work would occur on the existing Berth 2 deck and above the mean MHHW line. No in-water construction activities are proposed for this component.

2.4.4.9 Truck Loading Operation Revitalization

The proposed project includes reactivation and modernization of the truck loading operation adjacent to Bunkers 3 and 4. The existing loading shed would be removed and replaced with a new loading station. Cementitious materials would be received via rail and pneumatically conveyed to storage, then transferred to a new surge tank for truck loading.

Truck loading operations at Lanes 3 and 4 would also be upgraded, including replacement of truck scales and improvements to material handling systems, as described in Sections 2.4.4.2 and 2.4.4.3.

2.4.4.10 Civil Improvements and Utilities

Civil improvements would primarily occur within the rail yard area and include removal of existing pavement and slabs, grading, and installation of subgrade, base, and ballast to support new rail infrastructure. Minor piping modifications may also be required to connect with existing systems.

2.4.4.11 Existing Drainage and Modifications

Existing drainage infrastructure within the project area would be modified and integrated with new systems to manage stormwater from the rail yard and paved areas. Approximately two acres of impervious surface would be replaced with pervious areas, reducing stormwater runoff. Stormwater would continue to discharge through the Port's existing permitted system.

Construction activities would comply with applicable National Pollutant Discharge Elimination System (NPDES) requirements and the Port's *Storm Water Development Standards Plan* (DSP; Port 2009).

2.4.4.12 Paving and Rail Improvements

In addition to the main rail yard improvements, existing paving would be removed and replaced to facilitate a new rail connection between the entry track at Port Road A and the new rail yard. Pavement conditions throughout the site would be evaluated to retain and reuse serviceable areas wherever possible to maintain efficient truck circulation through the terminal. Where required, pavement would be reestablished or damaged sections would be repaired after construction is completed.

2.4.4.13 Utility Relocation and Upgrades

Utilities currently serving the Berth 3/4 area and surrounding terminal facilities would be either relocated, decommissioned, or upgraded as needed to support the proposed improvements. Utility

work would include electrical infrastructure. A new high-capacity electrical service would be provided by the local utility provider at a location near the existing service entrance. Power and control systems would use a combination of overhead and underground wiring to connect all equipment to a centralized control room.

2.4.5 Construction Schedule

The construction schedule presented in Table 5 represents a reasonable and conservative estimate of the timing and sequencing of project construction activities for the purposes of environmental analysis. Although earlier project planning anticipated construction beginning in 2026, the actual start of construction may occur later, potentially beginning in 2027, depending on final design, permitting, and construction planning. This potential shift in timing would not change the scope, duration, equipment types, or regulatory requirements associated with construction and would not affect the environmental analysis or conclusions.

Construction is anticipated to occur in phases over an approximate 2- to 5-year period. Work would generally occur up to 10 hours per day, 6 days per week. Construction activities would be coordinated to minimize disruption to ongoing terminal operations and would primarily occur within the existing terminal and proposed leasehold areas.

During the construction phase, licensed professional contractors would be retained to execute specialty construction tasks, including demolition, site civil modifications, structural upgrades at Berth 3/4, piling installation, and the erection of the new storage domes.

A separate team of licensed professional contractors would be responsible for constructing the remaining structures, installing material handling systems, implementing dust filtration systems, and most notably the new gantry-mounted ship unloader. The material handling equipment would be supported by structural steel frameworks, complete with stairs and access platforms to ensure safe and efficient operation.

These construction activities are planned to proceed largely in parallel with ongoing terminal operations, minimizing disruption to existing workflows. The proposed construction schedule is presented in Table 5.

Table 5
Construction Schedule

Construction	Anticipated Date Range		Calendar Days
	Start	End	
Phase 1			
Pre-Construction and Site Preparation	December 2026	April 2027	132
Rail Track Installation	December 2026	April 2027	111
Landside Piling and Ground Improvements	December 2026	June 2027	186
Landside Foundations and Paving	December 2026	July 2027	221
Berth 3/4 Marine Piling and Dock Upgrade[1]	June 2027	December 2027	160
Truck Self-Loading Kiosk	July 2027	September 2027	48
Ship Unloader Installation	November 2027	November 2027	27
Structural Mechanical Installation	July 2027	January 2028	182
Utility Connections, Metering, and Transformer	September 2027	April 2028	228
Dome 7 Construction (Design Build)	July 2027	May 2028	302
Startup and Checkout	October 2027	May 2028	210
Dry Commissioning	May 2028	May 2028	14
Wet Commissioning	May 2028	May 2028	14
Phase 2			
Demolition of Bunker 6	January 2030	May 2030	97
Landside Pilings and Foundation	April 2030	September 2030	128
Structural and Mechanical Installation	June 2030	September 2030	98
Electrical and Instrumentation Installation	September 2030	January 2031	100
Dome 6 Construction (Design, Build, Erection)	August 2030	May 2031	274
Checkout	December 2030	April 2031	123
Dry Commissioning	April 2031	May 2031	7
Wet Commissioning	May 2031	May 2031	7

Note: All in-water work activities, including pile foundation installation and concrete deck formwork, would occur during the in-water work window (July 1 to November 30).

2.5 Operations

Terminal operations would continue during construction, with coordination to maintain ongoing receiving, storage, and distribution activities to the extent feasible.

Following construction, terminal operations would remain similar in overall function to existing conditions; however, the proposed project would introduce upgraded equipment and reconfigured infrastructure that would increase operational efficiency and storage and loading capacity and support higher levels of vessel, truck, and rail activity.

Key operational changes would include:

- Relocation of primary vessel unloading operations from Berth 2 to Berth 3/4
- Increased vessel size accommodation and improved unloading efficiency
- Increased railcar loading capacity and consolidation of rail operations within the leasehold
- Upgrades to truck loading systems to improve loading efficiency and reduce idling
- Introduction of future barge loading capability

These changes would allow the terminal to increase throughput over time in response to market demand while remaining within existing permitted limits.

2.5.1 Ship Unloading Operations

Bulk cargo vessels would be unloaded at Berth 3/4 using a new enclosed mechanical ship unloader with a peak unloading capacity of approximately 1,700 MT per hour (approximately 1,800 short tons per hour). The unloader would move along the berth to access individual vessel holds sequentially.

The improved reach and capacity of the new unloader would allow more efficient unloading of modern vessels and would reduce the need for vessel repositioning during unloading. As a result, vessel unloading durations are expected to decrease from approximately 6 to 7 days under existing conditions to approximately 3 to 3.5 days per vessel under proposed conditions.

Although unloading efficiency would increase, total daily receiving volumes would remain within existing permitted limits.

2.5.2 Material Transfer and Storage

Cementitious materials discharged from vessels would be transferred to on-site storage using enclosed mechanical and pneumatic conveying systems equipped with air pollution control devices. Materials would be distributed to the new storage dome and existing bunkers.

The proposed project would replace manual reclaim operations with automated systems for a portion of storage capacity, improving efficiency and reducing reliance on mobile equipment. The

new storage dome would include automated extraction systems capable of supplying material to both truck and rail loading operations.

These improvements would increase storage capacity and improve material handling efficiency while maintaining enclosed transfer systems to minimize emissions.

2.5.3 Operating Schedule

Terminal operations would occur on a variable schedule depending on vessel activity and customer demand. Ship unloading may occur continuously (up to 24 hours per day) until vessel discharge is complete, consistent with current practices. Under existing conditions, unloading at Berth 2 averages approximately 6 to 7 days per vessel. With the proposed project, the new unloading system at Berth 3/4 is expected to reduce unloading duration to approximately 3 to 3.5 days per vessel.

Truck and rail loading operations would generally occur during extended daily operating periods. Typical loading hours would occur between approximately 10:00 p.m. and 7:00 p.m. the following day, although actual hours may vary based on operational needs.

In general, the terminal would operate Monday through Saturday, with occasional Sunday operations. Personnel would be present on site during all unloading and loading activities.

2.5.4 Proposed Project Throughputs

Terminal throughput is regulated under an existing PTO issued by SJVAPCD. The permit allows the terminal to receive up to 18,000 tons per day (2.628 million tons per year) and export up to 6,000 tons per day (2.19 million tons per year) by truck and rail.

Under existing conditions, terminal throughput is substantially below these permitted limits. As described in Section 2.3.1, recent operations reflect lower levels of vessel calls, truck trips, and railcar movements than allowed under the permit.

The proposed project would increase operational capacity through infrastructure upgrades, including improved unloading efficiency, expanded storage capacity, and enhanced truck and rail loading systems. For purposes of this project description, “operational capacity” refers to the terminal’s ability to unload, store, reclaim, and load out materials more efficiently than under existing conditions and does not represent an increase in the terminal’s permitted daily or annual throughput limits. These improvements would allow the terminal to increase throughput over time in response to market demand. However, total throughput would remain within existing permitted limits.

As shown in Table 6, the proposed project would result in a gradual increase in material throughput compared to baseline conditions, with corresponding increases in vessel calls, truck trips, and railcar

movements. Throughput is projected to increase over time, potentially approaching permitted limits by approximately Year 15 of operation.

The proposed project would also increase on-site storage capacity from approximately 94,900 tons to approximately 136,100 tons with the addition of the new storage dome. This increased storage capacity would support more efficient operations and allow the terminal to better manage fluctuations in supply and demand.

In addition to truck and rail transport, the proposed project would introduce the capability for barge loading operations. Although barge transport is not currently included in the existing PTO, any future barge operations would be subject to coordination with SJVAPCD and would be conducted within applicable emission limits.

Table 6 presents projected throughput volumes for baseline conditions and future operational scenarios, and Table 7 presents the associated transportation activity required to support those volumes. These projections reflect increases in operational activity that would occur within the constraints of existing permitted throughput limits. The projections presented in Tables 6 and 7 are planning-level estimates based on expected market demand, operational capacity, and reasonable assumptions regarding transportation modes.

Table 6
Projected Throughput Volumes

Mode	Baseline	Year 1	Year 5	Year 15
Imported (Receiving) Volumes				
Vessels	326,712	743,000	1,309,000	2,202,000
Railcars	0	0	112,500	150,000
Exported Volumes				
Trucks	281,654	426,000	570,500	845,000
Railcars	59,349	195,000	729,000	1,120,000
Barges	0	0	0	225,000

Note:
Current throughput permitted by SJVAPCD is 2,628,000 tons per year (18,000 tons per day) for receiving and 2,190,000 tons per year (6,000 tons per day) for shipping.

Table 7 presents the associated numbers of vessels, trucks, railcars, and barges that would be needed to import and export the volumes presented in Table 6.

Table 7
Transportation Modes

Mode	Baseline	Year 1	Year 5	Year 15
Transport to Terminal				
Vessels	10	18	31	53
Railcars	0	0	1,071	1,429
Transport from Terminal				
Trucks	10,833	16,385	21,942	32,500
Railcars	520	1,711	6,395	9,825
Barges	0	0	0	45

Notes:
Truck calls are expressed in one-way moves at 26 tons per truck.
Rail calls are expressed in one-way moves, assuming 105 tons for cementitious material.
Assumes an average of 15 railcars per train in Year 1 and 45 railcars per train in Years 5 and 15.
Assumes vessel cargo of 32,250 short tons in baseline which would grow to 41,800 short tons in years 1 through 15.
Assumes a barge volume of 5000 short tons per barge.

All projected throughput levels under the proposed project would remain within the limits established by the existing SJVAPCD PTO. Although operational capacity would increase, throughput would continue to be regulated by permit conditions. Any modifications required to accommodate changes in operations, such as barge loading, would be coordinated with SJVAPCD and would comply with applicable permitting requirements.

2.6 Proposed Alternatives

In accordance with CEQA Guidelines Section 15126.6, this DEIR evaluates a reasonable range of alternatives to the proposed project that could feasibly attain most of the basic project objectives while avoiding or substantially lessening significant environmental impacts.

As described in Section 2.1.2, the objectives of the proposed project are as follows:

- Improve and modernize the terminal to increase cementitious material throughput, up to existing permit limits, and meet regional demand for reliable cementitious material in Northern California.
- Upgrade the terminal to improve operational efficiency, optimize power use, enhance environmental controls, and ensure safe and efficient handling of cementitious materials.
- Upgrade Berth 3/4 to support new ship unloading equipment, comply with current design standards, and extend the useful life of the berth structure.
- Maintain and continue terminal operations to support the ongoing distribution of cementitious materials to the regional market.
- Modify and extend the lease with the Port to support the proposed improvements.

Based on these objectives, the following alternatives are evaluated in this DEIR:

- **Alternative 1:** No Project Alternative
- **Alternative 2:** Berth 2 Improvements Alternative

Section 6 provides a comparative analysis of these alternatives, including their ability to meet project objectives and avoid or reduce environmental impacts relative to the proposed project. These alternatives were selected because they represent feasible options capable of meeting most of the project objectives while providing a basis for comparative environmental analysis.

2.6.1 No Project Alternative

The No Project Alternative represents conditions that would reasonably be expected to occur if the proposed project were not approved. Under this alternative, the Port would not approve the lease modification, and no improvements would be constructed at Berth 3/4 or within the terminal leasehold. Existing infrastructure and operations would remain substantially unchanged.

Under the No Project Alternative, the terminal would continue to operate using existing facilities, including the Berth 2 ship unloader and existing storage and loading systems. Operational efficiency would remain constrained by aging infrastructure, and the terminal would not realize the efficiency improvements or capacity increases associated with the proposed project.

Although some variation in throughput could occur in response to market demand, overall throughput would be expected to remain below existing permitted limits due to operational constraints. Over time, as existing equipment continues to age, operational efficiency could decline, potentially resulting in reduced throughput compared to current conditions.

Because the proposed project is intended to meet growing regional demand for cementitious materials, it is reasonable to assume that, under the No Project Alternative, such demand would be met by other facilities. However, the location and operational characteristics of those facilities are unknown; therefore, any analysis of regional redistribution of material handling would be speculative and is not evaluated in this DEIR.

2.6.2 Berth 2 Improvements Alternative

The Berth 2 Improvements Alternative is based on a project that was previously proposed by Lehigh Hanson but not implemented at the terminal. Under this alternative, improvements similar in nature to the proposed project—including replacement of unloading equipment and upgrades to terminal infrastructure—would occur at Berth 2 rather than Berth 3/4.

Construction and operational activities under this alternative would generally be similar to those of the proposed project but would be concentrated at Berth 2. Implementation would require taking

Berth 2 out of service for an extended period, during which time Nevada Cement would need to rely more heavily on rail and truck deliveries to maintain operations.

Under this alternative, operational efficiency would improve compared to existing conditions; however, constraints associated with the physical configuration of Berth 2 would remain. In particular, the shorter berth length and limited ability to accommodate larger vessels would continue to reduce unloading efficiency relative to the proposed project.

As a result, throughput under this alternative would be expected to increase compared to existing conditions but would be lower than under the proposed project. Storage capacity would increase to approximately 130,100 tons, compared to approximately 136,100 tons under the proposed project.

Although this alternative could meet some of the project objectives, it would not fully achieve the objective of maximizing operational efficiency or accommodating larger vessels. In addition, this alternative would not provide the same level of operational flexibility or long-term efficiency improvements as the proposed project.

3 Environmental Impact Analysis

This section discusses the CEQA requirements and terminology used in the environmental impact analysis. Sections 3.1 through 3.13 evaluate the potential effects of the proposed project on specific environmental resource areas. To assist the reader in comparing information about the various environmental issues, Sections 3.1 through 3.13 each contain the following information for the specific resource area:

- **Environmental Setting:** The physical conditions in the vicinity of the proposed project, as they exist at the time of the NOP/IS for this DEIR (October 2024), specific to the resource area
- **Regulatory Setting:** The rules, regulations, and plans specific to the proposed project and resource area
- **Methodology for Determining Impacts:** A description of the quantitative or qualitative methods used to analyze potential impacts, including specific thresholds of significance (the criteria against which the analysis results are compared)
- **Impacts of the Proposed Project:** Potential impacts are compared to the thresholds of significance to determine their level of significance
- **Mitigation Measures:** Mitigation measures, as well as a plan to implement measures and findings of significance after the measures are implemented, are provided where potentially significant impacts are identified

In accordance with Section 15064 of the CEQA Guidelines, the environmental impact analysis for each resource section includes an evaluation of the direct physical changes in the environment that may be caused by the proposed project, as well as reasonably foreseeable indirect physical changes in the environment that may be caused by the proposed project. Factors that may be affected by the proposed project are evaluated using the criteria set forth in Appendix G of the CEQA Guidelines (Environmental Checklist) as amended (January 1, 2025). CEQA defines a significant impact on the environment as follows:

> Substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant. (CEQA Guidelines Section 15382)

Short- and long-term impacts are also considered. Short-term impacts are of a limited duration, such as those that occur during a construction phase. Long-term impacts are those of a greater duration, such as those that would encompass the proposed project duration and beyond.

As reflected in CEQA Guidelines Section 15126, environmental impacts are classified into the following categories:

- **No Impact:** No impact to the identified environmental resource would occur as a result of the proposed project.
- **Less than Significant:** Some impacts to the environmental resource may result from the proposed project; however, the impacts do not reach the threshold of significance.
- **Potentially Significant but Mitigation Measures Are Available to Reduce Impacts to a Less-than-Significant Level:** Significant adverse impacts may occur; however, with appropriate mitigation, they can be reduced to a less-than-significant level.
- **Significant and Unavoidable Adverse Impacts:** The environmental effect reaches or exceeds the threshold of significance even after mitigation measures have been applied to minimize their severity, or no mitigation is available to reduce the impacts to a less-than-significant level.

Mitigation measures are organized by the applicable resource topic for which they would reduce impacts (e.g., Aesthetics [AES] or Biological Resources [BIO]) and are described in full where first introduced in the DEIR. All mitigation measures to be implemented as part of the proposed project are summarized in Table ES-2.

Potential cumulative impacts for the proposed project for each environmental resource area are summarized in Section 4. Irreversible environmental changes that would be caused by the proposed project and growth-inducing impacts of the proposed project are identified in Section 5. In Section 6, the alternatives are compared to the proposed project and CEQA baseline and ranked relative to each other based on anticipated impacts for each resource area to determine the environmentally preferred alternative.

3.1 Aesthetics

This section describes existing aesthetic and visual conditions, applicable regulations, and potential impacts of the proposed project on visual character and views.

3.1.1 Environmental Setting

For the purposes of this analysis, the study area includes the project site and surrounding properties within the Port that contribute to the visual character and views of the area. This section describes the regional and local visual setting, including surrounding land uses and the physical characteristics of the project site and adjacent properties.

3.1.1.1 Regional Setting

The proposed project would occur entirely within Port property, which can be characterized as urban and mostly developed. All of the Port's land is zoned for industrial development and is leased for a variety of industrial uses. The Port is located on flat lands that do not possess significant natural topographic variation. Industrial developments are characterized by storage tanks, power production towers, cement and grain silos, railroad tracks, large storage buildings, and stockpiles of various commodities (Port 2020).

Regional land uses that affect the visual character at and around the project site include residential infill (the closest residential areas are located 500 feet south of the project site), industrial/commercial facilities (south, west, and east of the project site), and CCTC rail lines and right-of-way (south of the project site).

3.1.1.2 Study Area Setting

The existing Nevada Cement terminal is bound by the San Joaquin River, Port Road A, Port Road 1, and Port Road 2, north of Washington Street (Figure 1). The site is almost entirely developed and contains a 540-foot-long concrete dock structure (Berth 2) with a ship unloader, cementitious material storage facilities, truck loading stations, a wooden rail trestle, and an existing railcar loadout (see Section 2, Photographs 1 through 8 for photographs of structures). Berth 2 and the immediately adjacent wooden rail trestle are both located in the San Joaquin River. The silo ship *Golden Arrow*, owned and operated by CalPortland, is permanently moored at Berth 3. CalPortland plans to eventually relocate the *Golden Arrow* outside of the Port, although no relocation site has been identified. The project site is located just west of the San Joaquin River turning basin and adjacent to the Stockton DWSC. The San Joaquin River turning basin is located on the eastern end of the Stockton DWSC, in an area where the river widens allowing vessels to reverse orientation prior to departure from the Port area.

The terrain is primarily flat throughout the entire lease area. The Nevada Cement facility, including Berth 2, is entirely devoid of vegetation except for some small potted ornamental landscaping. The

shoreline contains a very small area of riparian vegetation adjacent to the existing wooden trestle, including several small (less than 6 inches in diameter at breast height) walnut trees. Small riparian trees are also present on the shoreline adjacent to Bunker 1 on the eastern edge of the proposed lease area, also outside the immediate improvement area.

The following properties are adjacent to the project site: Penny Newman Grain Company, a grain and agricultural commodities facility, to the east; Wilmar Oils and Fats, an oil refinery, to the west; CalPortland Cement, a building materials manufacturer and supplier to the south on Port 3 Road; Delta Surveillance Solutions, a security system supplier, to the north across the San Joaquin River; and CCTC, a railroad company, farther to the south across Port A Road. The properties to the west and east of the Nevada Cement facility are nearly devoid of vegetation. The developed areas located to the south include a mix of industrial and low-density residential properties that contain lawns, trees, and shrubs. Vegetation is limited within the surrounding industrial landscape. Other residential developments do not line the shoreline across the San Joaquin River; they are located behind existing industrial areas across the San Joaquin River to the northwest of the project site.

The water tower near Lane 1 and 2 is approximately 143 feet tall. The surrounding site structures, such as the Penny Newman Grain Company facility, measure up to 300 feet in height. The color palette of the existing structures is neutral with tones such as tan, grey, light brown, and white. The facility operates at night, with increased lighting after dusk for safety and security.

Photograph 9
View of Small Walnut Trees on Shoreline Across from Existing Wooden Rail Trestle



Photograph 10
View of Nevada Cement terminal from Harbor Street (Southeast of the Project Site)



Photograph 11
View of Nevada Cement terminal from Port Road A (Southwest of the Project Site)



Photograph 12
View of Nevada Cement terminal from San Juan and Field Avenues (North of the Project Site)



3.1.2 Applicable Regulations

3.1.2.1 State

California's Scenic Highway Program was created by the state legislature in 1963 with the purpose of protecting and enhancing the natural scenic beauty of California highways and adjacent corridors through special conservation treatment. The state laws governing the Scenic Highway Program are found in the Streets and Highways Code 260 through 284. A list of California's scenic highways and a map showing their locations may be obtained online from Caltrans's State Scenic Highways (Caltrans 2025). There are no designated state scenic highways in the immediate vicinity of the proposed project. The closest scenic highway to the project site is the portion of State Route 580 from Interstate 5 to State Route 205. This roadway is located approximately 20 miles to the southwest of the Port.

3.1.2.2 Local

The City's 2040 General Plan (City 2018) sets out policies for land use, transportation, safety, and community health for the city. The land use chapter of the 2040 General Plan addresses visual quality, including urban design and aesthetics issues. Discussions under the 2040 General Plan land use chapter which may be applicable to the proposed project are as follows:

- Require the incorporation of scenic views, including open space features like waterways, wetlands, natural landscapes, and parks, into design of the built environment (Action LU-1.3C).
- Integrate nature into the city and maintain Stockton's urban forest (Policy LU-5.1).
  - Require renovated and new projects to provide open spaces that create gateways, act as collectors for pedestrian systems, and/or provide a social focal point for a project and the surrounding community and corridor, as appropriate (Action LU-5.1A).
  - Require landscape plans to incorporate native and drought-tolerant plants in order to preserve the visual integrity of the landscape, conserve water, provide habitat conditions suitable for native vegetation, and ensure that a maximum number and variety of well-adapted plants are maintained (Action LU-5.1C).
- Protect natural resource areas, fish and wildlife habitat, scenic areas, open space areas, agricultural lands, parks, and other cultural/historic resources from encroachment or destruction by incompatible development (Policy LU-5.2).
- Design public facilities and infrastructure to maintain and improve the visual quality of the urban environment, including through the following approaches:
  - Design buildings and infrastructure to fit into and complement their ultimate surroundings.
  - Buffer buildings and infrastructure from their surroundings as appropriate to shield unsightly areas from public view.

- Provide appropriate landscaping (Action LU-6.3D).

3.1.2.3 Port of Stockton

Adopted in 2022, the Port's General Track Design Guidelines (Port 2022) are required for the design of all industrial track projects at the Port. The Port has adopted the Union Pacific Railroad (UP) and the BNSF Railway (BNSF) engineering standards, and the American Railway Engineering and Maintenance-of-Way Association Manual for Railway Engineering. The guidelines include requirements and standards for clearance, horizontal and vertical track alignment, structures, track, turnouts, derails, road crossings, walkways, and fences and gates.

3.1.3 Environmental Impacts and Mitigation Measures

3.1.3.1 Baseline

At the time of publication of the NOP/IS for the proposed project, Nevada Cement operated a bulk cementitious material receiving and distribution terminal. The structures and features within the project site are described in detail in Section 3.1.1. As described, the upland areas of the site are entirely devoid of vegetation except for some small potted ornamental landscaping. In addition, the shoreline contains a very small area of riparian vegetation, and the eastern property line contains a few trees. Surrounding land uses consist of industrial facilities typical of the Port environment, including material handling terminals, storage structures, and rail infrastructure. The project site also includes the San Joaquin River and shoreline adjacent to Berths 2 and 3/4 and the existing wooden rail trestle.

3.1.3.2 Thresholds

For purposes of this DEIR, the following thresholds, which are based on Appendix G of the CEQA Guidelines (Environmental Checklist), were used to determine whether the proposed project would result in impacts on aesthetics. The proposed project would have an impact on aesthetics if the following apply:

- **AES-1:** The project would have a substantial adverse effect on a scenic vista.
- **AES-2:** The project would substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a scenic highway.
- **AES-3:** The project would, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, the project would conflict with applicable zoning and other regulations governing scenic quality.
- **AES-4**: The project would create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

3.1.3.3 Methodology for Determining Impacts

The proposed project involves modification of the lease with the Port to increase the terminal's leasehold area and redevelopment of the terminal. Nevada Cement proposes to replace and upgrade aging upland and marine infrastructure, including installing a new ship unloader with a longer horizontal and vertical arm for extended reach, which could accommodate larger and wider OGVs that cannot currently be served due to size constraints.

The proposed project also involves upland facility improvements, including replacing Bunkers 6 and 7 with new concrete storage domes, modifying the existing Lanes 3 and 4 truck loading stations, enhancing the existing rail infrastructure, adding additional rail trackage to improve on-site rail operations, constructing a new railcar loading station, and adding new foundations to support infrastructure. There would not be any tree removal. There is no anticipated change in operational or security lighting.

The CEQA Guidelines define a substantial adverse effect on aesthetics as a significant effect on the environment. A substantial adverse effect would include impacts on scenic vistas and scenic resources, or associated with visual quality and view blockage, and nighttime illumination and glare. The loss of scenic resources or the introduction of contrasting features that could degrade the visual character of the project area is the focus of the aesthetics analysis. The analysis also addresses project consistency with applicable zoning and other regulations and policies.

This analysis uses a qualitative approach for characterizing and evaluating the proposed project's potential impacts on visual resources. In determining the significance of visual changes associated with the proposed project, consideration was given to the specific changes in visual composition, character, and valued qualities of the affected environment and the extent to which those factors would be affected.

3.1.3.4 Impact Analysis

3.1.3.4.1 AES-1: Would the project have a substantial adverse effect on a scenic vista?

Impacts to scenic vistas would occur if the proposed project obstructed or altered views of scenic resources. The analysis considers whether the proposed project would affect views from publicly accessible vantage points.

Except for the San Joaquin River shoreline, including Berths 2 and 3/4, areas proposed for development are shielded from long-distance view on all sides by existing topography, elevated roadways, fencing, landscaping, and buildings. This includes the ship unloader, rail trestle, new storage dome, and upland improvements to storage, rail, and truck loading systems. Project improvements as viewed from the shoreline would be consistent with the visual character of the

study area, which is already developed with industrial Port uses, and there would be no changes to the overall viewshed.

Impact Determination: Because there are no scenic vistas in the project area, and the proposed project is consistent with the existing surrounding visual character, the proposed project would have no effect on a scenic vista.

Mitigation Measures: None required.

Residual Impact: No impact.

3.1.3.4.2 AES-2: Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a scenic highway?

Scenic resources are physical landscape features and historic structures that contribute to the visual quality of an area viewed from a designated scenic highway. The nearest scenic highway to the project site is the California Delta Highway, located approximately 23 miles to the west.

Impact Determination: The project site is not located within or along, and is not visible from, a designated scenic highway. Therefore, the proposed project would not damage scenic resources within a scenic highway.

Mitigation Measures: None required.

Residual Impact: No impact.

3.1.3.4.3 AES-3: Would the project, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

The project setting is urbanized and industrial in character. The proposed project includes dock and upland improvements that would be visible from certain publicly accessible locations and therefore could affect the existing visual character or quality of views in the project area. The project site is visible from the San Joaquin River shoreline and from nearby roadways, including Port Road A, Port Road 1, Port Road 2 north of Washington Street, and Interstate 5 (I-5). Construction and operation would occur entirely within Port property and within the established industrial setting of the area.

The proposed project would introduce new and modified structures, including the ship unloader, storage dome, rail infrastructure, and associated material handling equipment. Although some new

features would be taller than existing structures on the site, including the existing water tower near Lanes 1 and 2, they would remain visually consistent with the surrounding industrial environment. As discussed in the environmental setting, nearby terminal and industrial structures already include large vertical elements, including the Penny Newman Grain Company facility, which exceeds the height of the proposed dome and associated equipment. The surrounding visual environment is characterized by industrial facilities, storage structures, silos, tanks, conveyors, and related infrastructure.

The proposed project would not introduce a contrasting land use or visual form that is out of character with the Port setting. The proposed structures would be located within an active marine-industrial area and would be visually compatible with surrounding development in terms of scale, massing, materials, and color palette. In addition, the proposed project would be consistent with applicable City and Port design guidance related to visual character and scenic quality. The proposed project does not include any natural landscapes, natural resource areas, or designated scenic views and would not substantially change the views of or from the San Joaquin River. The existing project site is devoid of vegetation except for some small potted ornamental landscaping, and there is no new landscaping proposed. The proposed project would be designed to comply with the Port's General Track Design Guidelines (Port 2022).

Impact Determination: The proposed project would not substantially degrade the existing visual character or quality of public views of the site and its surroundings and would not conflict with applicable zoning or other regulations governing scenic quality. Impacts would be less than significant.

Mitigation Measures: None required.

Residual Impact: Impacts would be less than significant.

3.1.3.4.4 AES-4: Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Artificial light impacts are generally associated with nighttime light sources such as security lighting, operational lighting, illuminated signage, and vehicle headlights. Glare is typically associated with sunlight or artificial light reflecting from highly polished surfaces or reflective surfaces. The facility currently operates at night, and lighting is used for operational and security purposes during nighttime hours.

The proposed project would not substantially change the facility's existing nighttime lighting conditions. No substantial increase in operational or security lighting is anticipated as part of the proposed project. In addition, the proposed project would not introduce highly reflective exterior materials that would create substantial new glare.

Impact Determination: The proposed project would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area. Impacts would be less than significant.

Mitigation Measures: None required.

Residual Impact: Impacts would be less than significant.

3.2 Air Quality

This section describes existing air quality conditions, applicable regulations, and potential impacts of the proposed project on air quality. Air pollutants are generally categorized as criteria pollutants or TACs. Criteria pollutants are those for which USEPA and ARB have set health- and welfare-based ambient air quality standards (AAQS) (national ambient air quality standards [NAAQS] and California ambient air quality standards [CAAQS]). TACs are pollutants that may cause serious illness or increased mortality even at relatively low concentrations and typically do not have AAQS.

3.2.1 Environmental Setting

For the purposes of this analysis, the study area includes the project site and surrounding areas that may be affected by project-related emissions, including nearby roadways, railways, and the San Joaquin River/Stockton DWSC.

The proposed project site is located in the northern portion of the San Joaquin Valley Air Basin (SJVAB), which is managed by SJVAPCD. Project-related mobile-source emissions would occur both inside and outside the SJVAB. Oceangoing vessels would also transit through the San Francisco Bay Area Air Basin (SFBAAB) under the jurisdiction of the Bay Area Air District (BAAD), and line-haul locomotives would also operate within the Sacramento Valley Air Basin (SVAB) under the jurisdiction of the Sacramento Metropolitan Air Quality Management District (SMAQMD). Accordingly, emissions generated within each of these air districts are evaluated in this analysis as applicable.

The SJVAB is bounded by the Sierra Nevada Mountains to the east, the Coast Ranges to the west, and the Tehachapi mountains to the south and is made up of eight counties in California's Central Valley: San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare, and the SJVAB portion of Kern. The climate within the SJVAB is typical of inland valleys in California with hot, dry summers and cool, mild winters. Daytime temperatures in the summer often exceed 100°F, with lows in the 60s. In winter, daytime temperatures are usually in the 50s, with lows around 35°F. Fog is common in the winter and may persist for days. Winds are predominantly up-valley (from the north), particularly during the spring and summer months. During fall and winter, winds are generally lighter and more variable but typically flow toward the south and southeast.

Air quality in the SJVAB is impacted by several sources, including motor vehicle emissions, oil production and refining, and agriculture. Due to the combined air pollution sources within the SJVAB and meteorological and geographical effects that limit dispersion of air pollution, the SJVAB can experience high air pollutant concentrations. Surrounding elevated terrain, in conjunction with temperature inversions, frequently restrict lateral and vertical dilution of pollutants. Ozone (O_3), the major component of the valley's summertime smog, is formed via chemical reactions between reactive organic gases (ROG) and nitrogen oxides (NOx) in the presence of ultraviolet radiation or sunlight. Abundant sunshine and warm temperatures in summer are ideal conditions for the formation of photochemical oxidants, and elevated O_3 concentrations are common. Tiny particles of solids or liquids (excluding pure water) that are suspended in the atmosphere are known as particulate matter (PM) and are classified according to their diameter in microns as either $PM_{2.5}$ (PM less than 2.5 microns in diameter) or PM_{10} (PM less than 10 microns in diameter). PM may be emitted directly (primary PM, such as dust or soot) or formed in the atmosphere through reactions involving precursor pollutants (secondary). Much of the valley's ambient PM is secondary PM, formed in atmospheric reactions of NOx.

The SFBAAB is bounded by the Pacific Ocean to the west, the Coast Ranges to the north and east, and includes the San Francisco Bay estuary and its surrounding urbanized valleys. The climate is characterized by cool, wet winters and warm, dry summers, with strong marine influences that moderate temperatures throughout much of the region. Prevailing winds are generally from the west and northwest, driven by onshore flow from the Pacific Ocean. These marine breezes promote dispersion of air pollutants over much of the region, although localized topography and periodic temperature inversions can reduce atmospheric mixing, particularly during stagnant weather conditions. Air quality within the SFBAAB is influenced by a combination of mobile sources, including automobiles, trucks, ships, locomotives, and aircraft, as well as emissions from industrial facilities, petroleum refining, commercial operations, residential wood burning, and consumer products. Although marine airflow generally provides favorable dispersion conditions, elevated pollutant concentrations can occur in inland valleys and near major transportation corridors. Elevated O_3 concentrations are most common during warm summer and early fall conditions, particularly in the eastern and southern portions of the air basin where transported pollutants combine with higher temperatures and increased solar radiation. $PM_{2.5}$ concentrations are influenced by both locally generated emissions and regional transport, with wintertime wood smoke and secondary particle formation contributing substantially to ambient fine particulate concentrations.

The SVAB is bounded by the Cascade Range to the north, the Sierra Nevada to the east, the Coast Ranges to the west, and the Sacramento–San Joaquin Delta to the south. The climate is characterized by hot, dry summers and cool, wet winters. Tule fog, a thick, persistent ground fog occurring mainly in the San Joaquin and Sacramento Valleys, is common during the winter months and can persist for several days under stagnant atmospheric conditions. Air movement

through the Delta provides periodic ventilation, but surrounding mountain ranges and seasonal temperature inversions can limit the dispersion of pollutants. Air quality within the SVAB is affected by a variety of emission sources, including motor vehicles, agricultural operations, residential wood burning, industrial facilities, electricity generation, and area sources such as construction and consumer products. Although the basin generally benefits from periodic air exchange with the San Francisco Bay Area through the Delta, meteorological conditions and surrounding topography can trap pollutants, particularly during periods of stagnant weather. High temperatures, abundant solar radiation, and transport of precursor emissions from both local and upwind sources contribute to elevated O_3 concentrations, particularly during the summer months. $PM_{2.5}$ concentrations are influenced by both locally generated emissions and regional transport, with wintertime wood smoke and secondary particle formation contributing substantially to ambient fine particulate concentrations.

3.2.1.1 Criteria Pollutants

USEPA and ARB classify an area as attainment, unclassified, or nonattainment depending on whether the monitored ambient air quality data show compliance, lack of data, or noncompliance with the AAQS, respectively. The NAAQS and CAAQS relevant to the proposed project are provided in Table 8. Areas without monitoring data are considered unclassified and are generally treated as attainment areas. Table 8 includes information on the main health effects associated with exceeding the standards. ARB monitors NAAQS and CAAQS standards to protect public health. For example, reductions in ambient $PM_{2.5}$ concentrations are associated with substantial public health benefits, including avoided premature mortality, hospital admissions, and other adverse health outcomes (ARB 2019) and exceedances correlate to the identified potential future adverse health effects described in Table 8. Local air districts use the NAAQS and CAAQS to develop localized thresholds based on regional risk factors such as weather patterns and geography.

Table 8
National and California Ambient Air Quality Standards

Pollutant	Averaging Period	California Standards	National Standards	Health Effects
O_3	1-hour	0.09 ppm	NA	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	NA	
$PM_{2.5}$	24-hour[b]	NA	35 µg/m^3	Increased respiratory disease, lung damage, cancer, premature death
	Annual	12 µg/m^3	9 µg/m^3	

Pollutant	Averaging Period	California Standards	National Standards	Health Effects
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	0.100 ppm[c]	Lung irritation and damage
	Annual	0.030 ppm	0.053 ppm	
SO_2	1-hour	0.25 ppm	0.075 ppm[c]	Increases lung disease and breathing problems for asthmatics
	3-hour	NA	0.5 ppm	
	24-hour	0.04 ppm	NA	
Lead	30-day	1.5 µg/m^3	NA	Increased body burden and impairment of blood formation and nerve conduction
	Quarter	NA	1.5 µg/m^3	
	3-month	NA	0.15 µg/m^3	
Sulfates	24-hour	25 µg/m^3	NA	Decrease in ventilator function, aggravation of asthmatic symptoms, aggravation of cardiopulmonary disease
Visibility-reducing particles	8-hour	In sufficient amount to give an extinction coefficient of >0.23 inverse kilometers[d]	NA	Short-term exposure: aggravate lung disease, asthma attacks and acute bronchitis, and increased susceptibility to respiratory infections. In people with heart disease, short-term exposures have been linked to heart attacks. Long-term exposure: reduced lung function, chronic bronchitis, and premature death.
Hydrogen sulfide	1-hour	0.03 ppm	NA	Odor
Vinyl chloride	24-hour	0.01 ppm	NA	Short-term exposure: central nervous system effects such as dizziness, drowsiness, and headaches Long-term exposure: liver damage, cancer

Notes:
Sources: USEPA 2026a; ARB 2026a

a. The federal 8-hour O_3 standard is based on the annual fourth-highest daily maximum 8-hour concentration, averaged over 3 years.
b. The federal 24-hour $PM_{2.5}$ standard is based on the 3-year average of the ninety-eighth percentile of the daily values.
c. The federal 1-hour NO_2 and SO_2 standards are based on the 3-year average of the ninety-eighth and ninety-ninth percentile of daily maximum values, respectively.
d. Visual range to less than 10 miles with relative humidity less than 70%.

The criteria pollutants of primary concern assessed in this DEIR are O_3, PM_{10}, $PM_{2.5}$, carbon monoxide (CO), nitrogen dioxide (NO_2), and sulfur dioxide (SO_2). Lead, hydrogen sulfide, and vinyl chloride would not be generated by the proposed project; therefore, these pollutants are not evaluated.

O_3 is a secondary pollutant that is not emitted directly but forms through reactions between ROG and NOx in the presence of sunlight. Thus, unlike inert pollutants, O_3 levels usually peak several hours after the precursors are emitted and many miles downwind of the source. Because of the complexity and uncertainty in predicting photochemical pollutant concentrations, O_3 impacts are indirectly addressed by comparing proposed project-generated emissions of ROG and NOx to daily emission thresholds set by SJVAPCD.

Table 9 summarizes the federal and state attainment status of criteria pollutants for the SJVAB based on the NAAQS and CAAQS, respectively.

Table 9
San Joaquin Valley Air Pollution Control District Attainment Status

Pollutant	Attainment Status	
	Federal	State
O_3	Nonattainment (8-hour) – Extreme	Nonattainment (1-hour) – Severe Nonattainment (8-hour)
PM_{10}	Attainment – Maintenance	Nonattainment
$PM_{2.5}$	Nonattainment – Moderate (annual) Nonattainment – Serious (24-hour)	Nonattainment
CO	Attainment – Maintenance	Attainment
NO_2	Attainment	Attainment
SO_2	Attainment	Attainment
Lead	No Designation	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Visibility-Reducing Particles	No Federal Standard	Unclassified

Notes:
Sources: SJVAPCD 2026; USEPA 2026b
a. No areas have yet been designated under the new 2024 annual $PM_{2.5}$ NAAQS because USEPA's designation process is still underway. The San Joaquin Valley has been designated as nonattainment for the 1997 and 2006 $PM_{2.5}$ NAAQS.

3.2.1.1.1 Local Air Monitoring Levels

Table 10 shows the most recent 3 years of monitored values for those criteria pollutants currently monitored at the Stockton-University Park station (702 North Aurora Street, Stockton, California) located approximately 2.1 miles east of the project site. During this time, there were exceedances of the state 1-hour O_3 standard, the state and national 8-hour O_3 standard, the state PM_{10} standard, and the national $PM_{2.5}$ 24-hour standard. No violations were recorded of the NO_2 or CO standards.

Table 10
Maximum Pollutant Concentrations Measured at the Stockton-University Park Monitoring Station

Pollutant/Parameter	2022	2023	2024
O_3			
Maximum 1-hour/8-hour average concentration (ppm)	0.141/0.113	0.086/0.068	0.111/0.082
Number of days state 1-hour standard exceeded	1	0	2
Number of days state/national 8-hour standard exceeded	1	0	2
PM_{10}			
Maximum state/national 24-hour concentration (µg/m^3)	81.3/80.6	81.5/81.7	75.7/73.7
Annual Average State/National Concentration (µg/m^3)	26.2/24.8	24.9*/23.2	23.2/23.4
Number of days state/national 24-hour standard exceeded	24/0	23/0	16/0
$PM_{2.5}$			
Maximum national 24-hour concentration (µg/m^3)	51.9	40.6	46.8
Annual state/national average (µg/m^3)	10.2/10.1	11.0*/10.6	10.0/10.0
Number of days national 24-hour standard exceeded	6	6	7
NO_2			
Maximum 1-hour average concentration (ppb)	44.2	45	32
Annual average (ppb)	8.0	8.0	9.0*
Number of days state/national standard exceeded	0/0	0/0	0/0
CO			
Maximum 1-hour/8-hour average concentration (ppm)	2.6/1.7	2.2/1.4	1.1/0.7
Number of days state/national 1-hour standard exceeded	0/0	0/0	0/0
Number of days state/national 8-hour standard exceeded	0/0	0/0	0/0

Notes:
Sources: ARB 2026b, 2026c; USEPA 2026c
CO is no longer monitored in the Stockton area as of January 2024.
O_3 8-hour exceedances are based on 0.070 ppm.
* Indicates the average does not satisfy minimum ARB/USEPA data completeness criteria

3.2.1.2 Toxic Air Contaminants

TACs are airborne compounds that are known or suspected to cause adverse human health effects after long-term or short-term exposure. Cancer risk can result from long-term exposure, and non-cancer health effects can result from either chronic or acute exposure. Examples of TAC sources are diesel- and gasoline-powered internal combustion engines in mobile sources; industrial processes and stationary sources such as dry cleaners, gasoline stations, and paint and solvent operations; and stationary fossil fuel-burning combustion sources, such as power plants. Table 11 describes health effects of common TACs of concern monitored in California. Of the pollutants listed in Table 11, diesel particulate matter (DPM) from combustion engines in ships, rail, and trucks would

be the primary TAC of concern; however, the Health Risk Assessment (HRA) completed for the proposed project considered all potential TACs associated with the proposed project.

Table 11
Toxic Air Contaminant Health Effects

Pollutant	Health Effects
Benzene	Central nervous system depression, nausea, tremors, drowsiness, dizziness, headache, irritation of the eyes and respiratory tract. Chronic exposure may reduce the production of both red and white blood cells resulting in aplastic anemia. Exposure to benzene may result in an increased risk of contracting cancer.
Chlorobenzene	Headaches, numbness, sleepiness, nausea, and vomiting.
DPM	Respiratory damage and premature death, and may result in increased risk of contracting cancer.
Ethyl benzene	Eye and throat irritation; exposure to high levels can result in vertigo and dizziness.
Ethylene glycol monobutyl ether	Eye, respiratory tract and skin irritation and burns; inhalation may cause headaches and hemolysis (red blood cell breakage).
Hexane	Short-term exposure affects the nervous system and can cause dizziness, nausea, headaches, and even unconsciousness. Chronic exposure can cause more severe damage to the nervous system.
Isopropyl alcohol	Skin rash, itching, dryness and redness, irritation of the nose and throat. Repeated high exposure can cause headache, dizziness, confusion, loss of coordination, unconsciousness and even death.
Methanol	Chronic exposure can cause visual problems and blindness, convulsions, coma, loss of consciousness, kidney failure, liver damage, low blood pressure, respiratory arrest, and damage to the central nervous system.
Naphthalene	May cause nausea, vomiting, diarrhea, blood in the urine, and a yellow color to the skin.
Propylene glycol monomethyl ether	Can irritate the nose, throat, and lungs causing coughing, wheezing, and/or shortness of breath, headaches, dizziness, lightheadedness, and passing out.
Toluene	Irritation of the eyes and nose; weakness, exhaustion, confusion, euphoria, dizziness, headache; dilated pupils, lacrimation (discharge of tears); anxiety, muscle fatigue, insomnia; numbness or tingling of the skin; dermatitis; liver and kidney damage.
Xylenes (mixed)	Depression of the central nervous system, with symptoms such as headache, dizziness, nausea, and vomiting.

Source: USEPA Integrated Risk Information System (USEPA 2026d)

3.2.2 Applicable Regulations

3.2.2.1 Federal

3.2.2.1.1 Clean Air Act

USEPA is responsible for setting and enforcing the NAAQS for O_3, CO, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and lead under the Clean Air Act (CAA). USEPA also establishes emission standards for on-road vehicles and off-road engines. The CAA forms the basis for national pollution control and delegates the enforcement of federal standards to the states. In California, ARB and local air agencies have the shared responsibility for enforcing air pollution regulations, with the local agencies having primary responsibility for regulating stationary emission sources. In the SJVAB, SJVAPCD has this responsibility.

In federal nonattainment areas, the CAA requires preparation of a State Implementation Plan (SIP) detailing how the state will attain the NAAQS within mandated time frames. In response to this requirement, local air quality agencies, in collaboration with other agencies, such as ARB, periodically prepare Air Quality Management Plans designed to bring the area into attainment with federal requirements and to incorporate the latest technical planning information. The Air Quality Management Plan for each nonattainment area is then incorporated into the SIP, which is submitted by ARB to USEPA for approval. USEPA often approves portions and disapproves other portions of submitted SIPs.

3.2.2.1.2 Emission Standards for Non-Road Diesel Engines

USEPA has established a series of progressively cleaner emission standards for new non-road (off-road) diesel engines. Tier 1 standards were phased in from 1996 to 2000; Tier 2 standards were phased in from 2001 to 2006; Tier 3 standards were phased in from 2006 to 2008; and Tier 4 standards, which may require add-on emission control equipment, were phased in from 2008 to 2015. For each tier, the phase-in schedule is driven by engine size. To enable sulfur-sensitive control technologies in Tier-4 engines, USEPA mandated reductions in the sulfur content of non-road diesel fuels to 15 parts per million (ppm; also known as ultra-low-sulfur diesel), effective 2010 (40 *Code of Federal Regulations* [CFR] 80, Subpart I).

3.2.2.2 State

The following sections detail state regulations applicable to the project. California has state-specific fuel regulations, including its cleaner-burning gasoline specifications under approved under CAA Section 211(c)(4) (often referred to as California Reformulated Gasoline). These California Reformulated Gasoline standards have been in place since the 1990s (with Phase 3 implemented beginning in 2003) and apply in lieu of the corresponding federal fuel specifications within California. California also has received waivers under Section 209 of the CAA allowing it to adopt and enforce vehicle emissions standards that are more stringent than the federal requirements. These standards

would apply primarily to cars and heavy-duty trucks associated with the proposed project. In 2025 and 2026, however, the Trump Administration and Congress took actions to revoke or invalidate several of these waivers, including those supporting California's Advanced Clean Cars II and related zero-emission vehicle programs, which include the Advanced Clean Trucks (ACT) program. California, joined by several other states, has challenged these actions in federal court, arguing that the federal government lacks the legal authority to rescind long-standing waivers through the mechanisms it employed.

The ultimate outcome of these vehicle emissions standards remains uncertain. Multiple lawsuits are pending that challenge the federal government's revocation of California's waivers, and the courts will determine whether those actions are legally valid. In addition, future federal administrations could again reverse course by restoring California's waiver authority or adopting different national emissions policies. As a result, the long-term regulatory framework for California vehicle emissions standards remains unresolved. At present, however, California is not enforcing the stricter vehicle emissions standards that depended on the revoked federal waivers, and regulated entities are generally subject to the applicable federal emissions requirements while the litigation proceeds.

At the time of publication of this DEIR, the legal and regulatory status of these regulations remains subject to continuing administrative and judicial proceedings. The potential implications of these developments for the project's air quality analysis are discussed in Section 3.2.3.

3.2.2.2.1 California Clean Air Act

The California Clean Air Act (CCAA), adopted in 1988, requires nonattainment areas to achieve and maintain CAAQS and mandates that local air districts develop triennial plans for attaining CAAQS. ARB is responsible for establishing CAAQS, ensuring CCAA implementation, and regulating emissions from consumer products and motor vehicles. ARB established CAAQS for all pollutants for which USEPA has established NAAQS, as well as for sulfates, visibility, hydrogen sulfide, and vinyl chloride. CAAQS are generally more stringent than NAAQS.

3.2.2.2.2 California Diesel Fuel Regulation

ARB has set sulfur limitations for diesel fuel sold in California for use in on- and off-road motor vehicles and to fulfill ARB's 2000 Diesel Risk Reduction Plan. Harbor craft and intrastate locomotives (switch locomotives) were originally excluded from the rule but were later included by a 2004 rule amendment. Under this rule, diesel fuel used in motor vehicles, except harbor craft and intrastate locomotives, has been limited to 500 ppm sulfur since 1993 and to 15 ppm sulfur since September 2006. Diesel fuel used in harbor craft in SJVAPCD was limited to 500 ppm sulfur starting January 1, 2006, and 15-ppm sulfur starting September 1, 2006. Diesel fuel used in intrastate locomotives has been limited to 15 ppm sulfur since January 1, 2007.

3.2.2.2.3 California Air Resources Board Heavy-Duty Truck Idling Regulation

This ARB rule became effective in 2005 and prohibits heavy-duty diesel trucks from idling for longer than 5 minutes at a time, unless they are queueing, provided the queue is located beyond 100 feet from homes or schools.

ARB has continued to implement and enforce idling limits through the Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling (13 CCR 2485), including additional restrictions near sensitive receptors such as schools and residential areas.

3.2.2.2.4 California Air Resources Board Cargo Handling Equipment at Ports and Intermodal Rail Yards

This rule became effective in December 2005 when ARB approved the Regulation for Mobile Cargo Handling Equipment at Ports and Intermodal Rail Yards (13 CCR 79), which was designed to use best available control technology (BACT) to reduce diesel PM and NOx emissions from mobile cargo-handling equipment at ports and intermodal rail yards. Since January 1, 2007, the regulation has imposed emission performance standards on new and in-use terminal equipment that vary by equipment type. In October 2012, the Office of Administrative Law approved amendments to the regulation to provide additional flexibility for cargo-handling equipment owners/operators in an effort to reduce compliance costs while continuing to reduce emissions. The regulation was fully implemented by the end of 2017. It also imposes operational limits, reporting and recordkeeping requirements, and restrictions on transferring non-compliant equipment. The regulation includes limited flexibility provisions (e.g., low-use exemptions), and ARB is now advancing policies to transition these fleets toward fully zero-emission technologies over the coming decades.

3.2.2.2.5 California Air Resources Board In-Use Off-Road Diesel Vehicle Rule

In July 2007, ARB adopted the Regulation for In-Use Off-Road Diesel-Fueled Fleets (Off-Road Diesel Regulation) to reduce DPM and NOx emissions from in-use (existing) off-road heavy-duty diesel vehicles in California. The regulation was adopted in April 2008, amended in 2011, and amended again in 2022. The regulation is applicable to all self-propelled off-road diesel vehicles 25 horsepower or greater used in California and most two-engine vehicles (except on-road two-engine sweepers, including vehicles that are rented or leased [rental or leased fleets]). Vehicles used solely for agricultural purposes are exempt from this regulation.

The Off-Road Diesel Regulation is a multipronged approach that does the following:

- Imposes limits on idling to 5 minutes, requires a written idling policy, and requires a disclosure when selling vehicles
- Requires all vehicles to be reported to ARB in an online reporting system
- Restricts the adding of older vehicles into fleets starting on January 1, 2014

- Requires fleets to reduce their emissions by retiring, replacing, or repowering older engines, or installing Verified Diesel Emission Control Strategies (i.e., exhaust retrofits)

The 2022 Amendments include a staggered phase-out of Tier-0 through Tier-2 off-road engines and a restriction on new Tier-3 and Tier-4 vehicles. Beginning January 1, 2024, a fleet may not add a vehicle with a Tier-3 engine to its fleet; the engine tier must be Tier 4 or higher. Beginning January 1, 2024, for large and medium fleets, and January 1, 2028, for small fleets, a fleet may not add a vehicle with a Tier-4i engine to its fleet; the engine tier must be Tier 4F or higher. Starting January 1, 2024, all fleets must use R99 or R100 Renewable Diesel.

3.2.2.2.6 California Air Resources Board Regulation to Reduce Emissions from Diesel Engines on Commercial Harbor Craft

In November 2007, ARB adopted a regulation to reduce DPM and NOx emissions from new and in-use commercial harbor craft. Under ARB's definition, commercial harbor craft include tugboats, tow boats, ferries, excursion vessels, work boats, crew boats, and fishing vessels. The regulation implemented stringent emission limits on harbor craft auxiliary and propulsion engines. In 2010, ARB amended the regulation to add specific in-use requirements for barges, dredges, and crew/supply vessels. In 2022, a new set of amendments were adopted to expand the applicability of the regulation to more vessel types and require cleaner upgrades and newer technology. The 2022 Amendments went into effect on January 1, 2023, with a phased approach. Under the amendments, all tugs are required to be upgraded to Tier-4 engines by December 31, 2029.

3.2.2.2.7 California Air Resources Board Regulations for Fuel Sulfur and Other Operational Requirements for Oceangoing Vessels Within California Waters and 24 Nautical Miles of the California Coast

In 2008, ARB adopted a clean fuel regulation for OGVs within 24 nautical miles of the California coast to further reduce emissions from shipping. Since then, the permitted sulfur content of marine gas oil and marine diesel oil has been progressively lowered and since 2014 may not exceed 0.1%. ARB passed a rule in 2014 that allows marine vessels to be considered in compliance with the California oceangoing fuel regulation when they are complying with the North American Emission Control Area using alternative emission control technologies or non-distillate low sulfur (less than or equal to 0.1% sulfur) marine fuels.

3.2.2.2.8 California Air Resources Board Advanced Clean Trucks Regulation

In 2020, ARB adopted the ACT regulation, which requires manufacturers of medium- and heavy-duty vehicles to sell increasing percentages of zero-emission trucks over time. The ACT regulation is intended to reduce NOx and DPM emissions from the heavy-duty transportation sector and is relevant to facilities that rely on truck-based goods movement, such as industrial and port-related operations. The regulation does not include a required phase-out of existing trucks.

3.2.2.2.9 California Air Resources Board Advanced Clean Fleets Regulation

In 2023, ARB adopted the Advanced Clean Fleets (ACF) regulation, which establishes requirements for certain public and private fleets to transition to zero-emission vehicles. The regulation includes provisions applicable to high-priority fleets and drayage trucks serving California ports and intermodal facilities. Although the regulation applies to fleet owners rather than shippers, it would affect the emissions profile of heavy-duty trucks serving the proposed facility as vehicle fleets transition to zero-emission technologies. The rule includes the ability to continue operating existing vehicles through their useful life.

3.2.2.2.10 Toxic Air Contaminant Regulations

California established the California TAC Program (AB 1807 and AB 2728) in 1983. This program sets provisions to implement the national program for control of hazardous air pollutants. The Air Toxics "Hot Spots" Information and Assessment Act (Hot Spots Act; AB 2588), established in 1987, is designed to provide information to state and local agencies and to the public on the extent of airborne TAC emissions from stationary sources and the potential public health impact of those emissions. The Hot Spots Act requires that the Office of Environmental Health Hazard Assessment develop HRA guidelines. The Hot Spots Act requires operators of certain stationary sources to inventory air toxic emissions from their operations and prepare an HRA, if directed by their local air district, to determine the potential health impacts of their air toxic emissions.

3.2.2.2.11 Senate Bill 1000: The Planning for Healthy Communities Act

The Planning for Healthy Communities Act (Senate Bill [SB] 1000) authored by Senator Connie Leyva and cosponsored by the California Environmental Justice Alliance and the Center for Community Action and Environmental Justice was passed in 2016. SB 1000 requires cities and counties to adopt an environmental justice element, or integrate environmental justice-related policies, objectives, and goals throughout other elements of their general plan in order to reduce disproportionate air pollution burdens on disadvantaged communities. This law also includes a process for community members to become involved in the decision-making processes associated with land use planning.

3.2.2.2.12 Assembly Bill 617: Community Air Protection Program

AB 617, signed into law in 2017, established the California Community Air Protection Program to reduce exposure to air pollution in communities disproportionately affected by emissions from multiple sources. The program requires ARB, in coordination with local air districts, to identify communities with high cumulative air pollution burdens and develop community-specific emissions reduction programs. AB 617 includes enhanced community air monitoring, emissions inventories, community emissions reduction programs (CERPs), and increased enforcement of air quality regulations. Rather than establishing new project-specific emission standards or CEQA significance

thresholds, AB 617 is implemented through local air district planning, permitting, monitoring, and incentive programs.

The project site is located within the South Stockton community, which has been designated as an AB 617 community. SJVAPCD and community stakeholders developed the South Stockton Community Emissions Reduction Program and Community Air Monitoring Plan to identify priority air quality concerns and strategies for reducing emissions from industrial facilities, goods movement, transportation, and other local sources. The proposed project would remain subject to applicable SJVAPCD permitting requirements and regulations developed in support of AB 617, where applicable.

3.2.2.3 Regional and Local

3.2.2.3.1 San Joaquin Valley Air Pollution Control District

SJVAPCD is responsible for implementing federal and state regulations at the local level, permitting stationary sources of air pollution, and developing the local elements of the SIP. Emissions from indirect sources, such as automobile traffic associated with development projects, are addressed through SJVAPCD's air quality plans, which constitute the air district's contribution to the SIP. The most recent 2024 Plan for the 2012 Annual $PM_{2.5}$ Standard was adopted by the District Governing Board on June 20, 2024 (SJVAPCD 2023). The most recent 2022 Plan for the 2015 8-Hour Ozone Standard was adopted by the District Governing Board on December 15, 2022 (SJVAPCD 2022).

In addition to permitting and rule compliance, air quality management at the local level is also accomplished through development of regional CEQA significance thresholds and mitigation measures. SJVAPCD has established CEQA significance thresholds based on regional attainment status, emission sources, and air basin characteristics. These thresholds are used to evaluate the significance of project-related emissions.

SJVAPCD is responsible for permitting several components of the proposed project's operation. The facility currently is authorized to operate various unloading operations under a PTO. Specific regulations applicable to the project include the following.

- **SJVAPCD Rule 2201: New and Modified Stationary Source Review.** SJVAPCD Rule 2201 establishes pre-construction permitting requirements for new and modified stationary sources. The rule requires implementation of BACT and, where applicable, emissions offsets for projects that exceed specified thresholds. The facility would be subject to this rule for any new or modified emission units requiring Authority to Construct and PTO approval.
- **SJVAPCD Rule 4101: Visible Emissions.** SJVAPCD Rule 4101 prohibits a single source to discharge any air contaminant, other than uncombined water vapor, which exceeds the

standards set forth in Section 5 of this rule. The facility is subject to requirements of this rule and will continue to comply with SJVAPCD Rule 4101.

- **SJVAPCD Rule 4102: Nuisance.** SJVAPCD Rule 4102-4 prohibits the discharge any air contaminants, which would cause injury, detriment, nuisance, or annoyance to the public. The facility is subject to requirements of this rule and will continue to comply with SJVAPCD Rule 4102.
- **SJVAPCD Rule 4201: Particulate Matter Concentration.** SJVAPCD Rule 4201-3 prohibits a single source to discharge dust, fumes, or suspended PM in excess of 0.1 grain per dry standard cubic foot under dry conditions. The facility is subject to the requirements of this rule and will continue to comply with SJVAPCD Rule 4201.
- **SJVAPCD Rule 4202: Particulate Matter Emission Rate.** SJVAPCD Rule 4202-4 prohibits the discharge of PM into the atmosphere at a rate which exceeds the limitations determined by the process weight as defined and detailed in SJVAPCD Rule 4202. The facility is subject to the requirements of this rule and will continue to comply with SJVAPCD Rule 4202.
- **SJVAPCD Rule 8021: Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities.** SJVAPCD Rule 8021 provides fugitive dust control requirements for any construction, demolition, excavation, extraction, and other earthmoving activities. Nevada Cement will comply with all provisions of SJVAPCD Rule 8021.
- **SJVAPCD Rule 8061: Paved and Unpaved Roads.** SJVAPCD Rule 8061 limits fugitive dust emissions from paved and unpaved roads by implementing control measures and design criteria. This rule applies to any new or existing public or private paved or unpaved road, road construction project, or road modification project.
- **SJVAPCD Rule 8041: Carryout and Track Out.** SJVAPCD Rule 8041 limits fugitive dust emissions from carryout and track out. Under this rule, the owner/operator shall remove all visible carryout and track out at the end of each workday.

As part of the proposed project, Nevada Cement would submit new permit applications, which would be reviewed and considered by SJVAPCD.

3.2.2.3.2 Bay Area Air District

BAAD is responsible for implementing federal and state air quality programs within the SFBAAB and has adopted CEQA air quality guidelines that include significance thresholds for criteria pollutant emissions. Because OGV transit associated with the proposed project would occur within BAAD jurisdiction, operational emissions generated within the SFBAAB are compared to BAAD's applicable CEQA thresholds. The proposed project is not subject to BAAD stationary source permitting because no project facilities are located within the district.

3.2.2.3.3 Sacramento Metropolitan Air Quality Management District

SMAQMD implements federal and state air quality regulations within Sacramento County and has adopted CEQA significance thresholds for evaluating project emissions. Rail emissions associated with the proposed project that occur within the SVAB are compared to SMAQMD's applicable thresholds of significance. Because the proposed project is located outside SMAQMD jurisdiction, the project is not subject to SMAQMD permitting requirements.

3.2.2.3.4 Envision Stockton 2040 General Plan

The City's 2040 General Plan (City 2018) includes goals and policies applicable to the proposed project in the land use element that address land use and planning, and in the safety element that address hazards, emergency response, and safety, including air quality. The following policies may apply to the proposed project:

- Comply with State requirements that limit the idling of motor vehicles (Action LU-6.2D).
- Improve local air quality (Goal SAF-4).
- Reduce air impacts from mobile and stationary sources of air pollution (Policy SAF-4.1).
    - Require the construction and operation of new development to implement best practices that reduce air pollutant emissions, including (Action SAF-4.1A):
        - Use of low-emission and well-maintained construction equipment, with idling time limits.
        - Development and implementation of a dust control plan during construction
        - Installation of electrical service connections at loading docks, where appropriate
        - Installation of Energy Star-certified appliances.
        - Entering into Voluntary Emissions Reduction Agreements with the SJVAPCD
    - Use the results of the HRAs required by the Hot Spots Act to establish appropriate land use buffer zones around any new sources of toxic air pollutants that pose substantial health risks (Action SAF-4.1B).
    - Require the use of electric-powered construction and landscaping equipment as conditions of project approval when appropriate (Action SAF-4.1C).
    - Limit heavy-duty off-road equipment idling time to meet ARB's idling regulations for on-road trucks (Action SAF-4.1D).
- Coordinate with the SJVAPCD and non-profit organizations to promote public awareness on air quality issues and consistency in air quality impacts analyses (Policy SAF-4.3).
    - Coordinate review of development project applications with the SJVAPCD to ensure that air quality impacts are consistently identified and mitigated during CEQA review (Action SAF-4.3B).

3.2.2.3.5 Port of Stockton Clean Air Plan

The Port's Clean Air Plan (2023) is a comprehensive strategy developed to guide the Port's efforts to reduce air pollutant emissions and GHGs while maintaining economic activity. The plan establishes a framework for integrating air quality considerations into port operations, land use decisions, procurement practices, tenant requirements, and capital investments. It emphasizes alignment with state and regional air quality goals, and prioritizes cost-effective, practical measures that improve air quality without negatively impacting the local economy or workforce. A key focus of the Clean Air Plan is transitioning the port toward zero- and near-zero-emission technologies, including electrification of cargo-handling equipment, cleaner truck fleets, shore power for vessels, and renewable energy systems such as solar and battery storage. The plan also relies heavily on partnerships with tenants, regulatory agencies, and the local community, incorporating stakeholder input and programs like AB 617 to address environmental justice concerns. Implementation is supported through policies, lease conditions, voluntary programs, and funding initiatives, with ongoing emissions tracking and reporting to measure progress and ensure accountability.

3.2.3 Environmental Impacts and Mitigation Measures

3.2.3.1 Baseline

Baseline operations are discussed in Section 2.3. As shown in Table 4, the terminal imported 326,712 tons of cementitious material by vessels in the subject 12-month time period and exported 341,003 tons of cementitious material by truck and rail. Terminal operations during baseline operations included the use of several pieces of terminal equipment: two front-end loaders, a rail-mounted yard wagon, a sweeper, a manlift, a welder, an air compressor, a terminal pickup, a skidsteer, and a forklift.

3.2.3.2 Thresholds

For purposes of this DEIR, the following thresholds, which are based on the Appendix G of the CEQA Guidelines (Environmental Checklist) and SJVAPCD, BAAD, and SMAQMD guidance (Table 12), were used to determine whether the proposed project would result in air quality impacts. The proposed project would have an impact on air quality if the following apply:

- **AIR-1:** The project would conflict with or obstruct implementation of the applicable air quality plan.
- **AIR-2:** The project would result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state AAQS.
- **AIR-3:** The project would expose sensitive receptors to substantial pollutant concentrations.
- **AIR-4:** The project would result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

SJVAPCD has established thresholds of significance for criteria pollutant emissions, which are based on New Source Review offset requirements for stationary sources and the NAAQS and CAAQS. These thresholds represent a regional approach to meeting the NAAQS and CAAQS, recognizing SJVAPCD's attainment status, emission sources, and regional geography. Because the SJVAB is an extreme O_3 nonattainment area, stationary sources in SJVAPCD are subject to some of the toughest regulatory requirements in the nation. Emission reductions achieved through implementation of offset requirements are a major component of SJVAPCD's air quality plans. Therefore, projects with emissions below the SJVAPCD thresholds of significance for criteria pollutants would be determined to not conflict with or obstruct implementation of the air quality plans, whereas emissions exceeding those thresholds would conflict with and obstruct implementation.

In addition to the CEQA regional significance thresholds described previously, SJVAPCD recommends the use of screening level criteria for evaluating localized ambient air quality impacts. Screening levels are intended to provide a conservative comparison of project emissions to levels that would not be expected to substantially affect ambient air quality or interfere with attainment of the NAAQS or CAAQS. Projects with emissions below screening levels are generally considered to have a low likelihood of causing or contributing to ambient air quality violations, whereas projects exceeding screening levels warrant a more detailed evaluation of potential air quality impacts. The more detailed evaluation, called an ambient air quality analysis (AAQA), involves use of a dispersion model to estimate localized pollutant concentrations in the neighborhoods surrounding the project site.

Because vessel and rail activity associated with the proposed project would also occur within areas managed by the BAAD and SMAQMD, respectively, operational emissions within these jurisdictions were also compared to applicable thresholds of significance. BAAD and SMAQMD thresholds are also aimed at reducing criteria pollutant emissions below applicable air quality plans to meet SIP standards in their respective air basin. Likewise, projects with emissions below the thresholds of significance for criteria pollutants would be determined to not conflict or obstruct implementation of the air quality plans, whereas emissions exceeding those thresholds would conflict with and obstruct implementation.

Table 12
Air Districts Criteria Pollutant Thresholds

Pollutant	Construction Emission Thresholds (tons per year)	Operations		AAQA Screening Level (pounds per day)
		Non-Permitted Equipment and Activity Threshold (tons per year)	Permitted Equipment and Activity Threshold (tons per year)	
San Joaquin Valley Air Pollution Control District				
NOx	10	10	10	100
ROG	10	10	10	100
CO	100	100	100	100

Pollutant	Construction Emission Thresholds (tons per year)	Operations		AAQA Screening Level (pounds per day)
		Non-Permitted Equipment and Activity Threshold (tons per year)	Permitted Equipment and Activity Threshold (tons per year)	
PM_{10}	15	15	15	100
$PM_{2.5}$	15	15	15	100
SO_2	27	27	27	100
Pollutant	**Construction Average Daily (pounds per day)**	**Operational Average Daily Emissions (pounds per day)**	**Operational Maximum Annual Emissions (tons per year)**	**AAQA Screening Level**
Bay Area Air District				
ROG	54	54	10	NA
NOx	54	54	10	NA
PM_{10}	82 (exhaust)	82	15	NA
$PM_{2.5}$	54 (exhaust)	54	10	NA
Pollutant	**Construction Emission Thresholds**	**Operational Average Daily Emissions (pounds per day)**	**Operational Maximum Annual Emissions (tons per year)**	**AAQA Screening Level**
Sacramento Metropolitan Air Quality Management District				
PM_{10}	80 lb/day 14.6 ton/year	80	14.6	NA
$PM_{2.5}$	82 lb/day 15 ton/year	82	15	NA
NOx	85 lb/day	65	None	NA
ROG (VOC)	None	65	None	NA

Sources: SJVAPCD 2015a, BAAD 2022, SMAQMD 2020

3.2.3.3 Methodology for Determining Impacts

A summary of assumptions related to the air quality analysis is provided in the following subsections. Complete details, as well as modeling results related to the air quality analysis, can be found in Appendix C.

3.2.3.3.1 Construction

Construction emissions would be generated by off-road construction equipment, on-road vehicles, marine vessels (e.g., work boats, barges, and tugboats), and OGVs used for delivery of the new ship unloader and associated components. Construction activities are anticipated to occur over a multiyear period beginning in 2026 and extending through approximately 2031 and would occur in phases associated with demolition, marine improvements, equipment installation, and upland facility

upgrades. The construction of the proposed project would occur in two phases, with the bulk of construction occurring between 2026 and 2028. The second phase, related to demolition of Bunker 6 and construction of Dome 6, would occur 2030 to 2031.

Major construction elements would include demolition and removal of existing structures, rehabilitation and modification of Berth 3/4, installation of a new ship unloader and conveyance systems, and construction of upland improvements, including storage domes, rail infrastructure, and loading systems. These activities would require the use of diesel-powered construction equipment (e.g., cranes, pile drivers, loaders, and excavators), haul trucks, and worker vehicles. Marine construction activities would also require the use of in-water equipment and support vessels.

Based on the construction schedule (Table 5), maximum daily and annual construction emissions were calculated for each construction phase and activity. Construction emissions would primarily result from exhaust emissions from diesel-fueled equipment and vehicles as well as fugitive dust from ground-disturbing activities. Emissions from marine vessels associated with construction and delivery of equipment were also quantified. Land-based construction emissions were estimated using the California Emissions Estimator Model (CalEEMod), whereas marine vessel emissions were calculated using applicable USEPA and ARB emission factors and activity data. A detailed description of construction assumptions, equipment types, horsepower ratings, and activity levels is provided in Appendix C-1 and C-2.

3.2.3.3.2 Operations

The air quality analysis evaluates the maximum operational scenario at full project buildout, including all modes (vessels, trucks, equipment, and barges). Operational emissions would result from ongoing terminal activities, including OGV calls, commercial harbor craft operations, rail activity (line-haul and switching), on-road trucks, employee vehicle trips, and on-site material handling equipment. Following project implementation, terminal operations would remain similar in function to existing operations but would occur at higher throughput levels and with updated equipment and infrastructure.

The terminal would operate up to 24 hours per day, with vessel unloading occurring up to 21 hours a day during ship calls and truck and rail loading generally occurring over extended daily operating windows. Cementitious materials would be received primarily by OGVs at Berth 3/4 and, in the future, may also be received by rail. Product would be transferred via enclosed conveying systems to storage structures and subsequently distributed by truck, rail, or barge.

Exhaust emissions from trucks and employee vehicles were estimated using emission factors from ARB's EMFAC model, whereas entrained road dust emissions were calculated using ARB-approved methodologies. After completion of the emission estimates prepared for this study (Appendix C), ARB released updated guidance on the use of EMFAC2021 off-model adjustment factors and EMFAC2025 emission factors in response to federal actions affecting several California heavy-duty

vehicle regulations. The guidance reflects the current regulatory status resulting from the federal government's revocation or invalidation of several CCAA waivers while litigation challenging those actions remains ongoing, as discussed in Section 3.2.2.2. As discussed, the long-term applicability of the affected regulations remains uncertain.

The Port reviewed the updated guidance to evaluate whether the revised mobile-source assumptions would materially affect the conclusions of this analysis. The review found that the updates primarily affect medium- and heavy-duty truck emissions, whereas passenger vehicle emissions are largely unchanged. Although application of the updated factors could increase certain truck emissions, truck emissions represent only a portion of the overall project emissions inventory and only one component of the broader emissions inventories evaluated in the ambient air quality and HRAs. Based on the magnitude of the adjustment factors, comparison of the updated EMFAC2025 model results, and the relatively limited contribution of truck emissions to the overall project emissions inventory, the Port concluded that the updated mobile-source assumptions would not be expected to materially affect the air quality, ambient air quality, or health risk significance determinations presented in this DEIR. Therefore, the significance conclusions remain unchanged.

Rail emissions include both line-haul locomotives transporting materials to and from the region and switching locomotives operating within or near the terminal. Line-haul emissions were calculated based on fuel consumption, travel distance, and locomotive characteristics, whereas switching emissions were based on switching frequency, duration, and locomotive fleet characteristics.

Marine emissions include OGVs in transit, maneuvering, and at-berth as well as commercial harbor craft such as tugboats assisting vessel movements. Emissions were calculated based on vessel activity, engine load factors, and emission factors representative of the applicable fleet mix.

On-site operational emissions also include material handling equipment (e.g., loaders and yard equipment) and dust control systems associated with cementitious material transfer, storage, and loading. All material handling activities would occur within enclosed and negatively vented systems designed to minimize fugitive emissions.

Emissions were calculated using industry-accepted emission factors, and source activity (e.g., berth times) provided by Nevada Cement. Operations are expected to scale up over 15 years to full buildout activities. Accordingly, the analysis calculated emissions at Year 1, Year 5, and Year 15. Operational emissions are summarized by permitted and non-permitted activities for comparison to various screening criteria and significance thresholds. Operational activity, modeling assumptions, and calculated emissions are provided in Appendix C-1 and C-2.

3.2.3.4 Impact Analysis

3.2.3.4.1 AIR-1: Would the project conflict with or obstruct implementation of the applicable air quality plan?

SJVAPCD has established thresholds of significance for criteria pollutant emissions, which are based on New Source Review offset requirements for stationary sources and the NAAQS and CAAQS. These thresholds represent a regional approach to meeting the NAAQS and CAAQS, recognizing SJVAPCD's attainment status and regional conditions. Because the SJVAB is an extreme O_3 nonattainment area and a moderate nonattainment area for PM, stationary sources in SJVAPCD are subject to some of the toughest regulatory requirements in the nation. Emission reductions achieved through offset requirements are a major component of SJVAPCD's air quality plans. SJVAPCD plans (e.g., 2016a and 2022 O_3 plans, 2016b, 2018, and 2024 PM plans) rely on a comprehensive strategy that combines aggressive reductions in NOx and volatile organic compounds (VOCs) from stationary, area, and mobile sources; technology-forcing rules and incentives; and strong reliance on state and federal mobile-source controls led by ARB. Therefore, if project emissions exceed applicable SJVAPCD thresholds, the proposed project would be considered to conflict with or obstruct implementation of the applicable air quality plans.

BAAD and SMAQMD also have established thresholds aimed at reducing criteria pollutant emissions to meet air quality standards and SIP requirements in their respective air basins. Likewise, projects with emissions below the thresholds of significance for criteria pollutants would be determined to not conflict or obstruct implementation of the air quality plans, whereas emissions exceeding those thresholds would conflict with and obstruct implementation.

Because consistency with applicable air quality plans is based on whether proposed project emissions exceed applicable air district CEQA thresholds, the detailed emissions analysis and comparison to thresholds are presented under AIR-2. That analysis provides the basis for the conclusions presented below, and should be referenced for a complete understanding of proposed project emissions and their relationship to applicable air quality plans.

Tables 13 through 22 in AIR-2 present construction and operational emissions resulting from the proposed project and AAQA results. As shown, construction emissions, annual operational emissions, and operational ambient air quality concentrations would exceed SJVAPCD and BAAD thresholds.

In addition to the regional plans, the proposed project is within the planning area identified under Stockton's CERP (see Section 3.2.2.2.12). The CERP describes the sources of pollution impacting the Southwest Stockton community. Strategies for reducing air pollution impacts and health risk reduction from these sources were evaluated and selected as part of the public engagement process between the AB 617 Community Steering Committee, SJVAPCD, and ARB. The committee has expressed the need for the installation of vegetative barriers (and sound walls) around and near

sources of concern such as schools, along truck routes, and near the Port, Charter Way, Boggs Tract, and El Dorado, with an additional priority along Interstate 5.

The proposed project was reviewed for consistency with the Port's Clean Air Plan and applicable City General Plan policies, including environmental justice policies. The Port Clean Air Plan promotes reductions in emissions from Port-related operations through measures such as cleaner equipment, reduced idling, and operational efficiencies. Similarly, the City's General Plan includes policies to reduce criteria pollutant emissions, improve community air quality, and reduce exposure to air pollution in disadvantaged communities. The proposed project incorporates several of these objectives through modernization of terminal infrastructure and implementation of mitigation measures requiring cleaner construction equipment, reduced idling, cleaner trucks, and cleaner yard equipment.

However, because project emissions would increase over baseline as discussed in AIR-2, the project would not fully achieve the emission reduction goals of the Port Clean Air Plan or applicable General Plan air quality policies. Therefore, the project would be considered inconsistent with these plans and policies.

Impact Determination: As shown under AIR-2, because the proposed project would exceed applicable air thresholds and would conflict with and obstruct implementation of SJVAPCD's O_3 attainment plans, including its most recent 2016 plan for the 2008 8-hour O_3 standard. Impacts would be considered significant.

Mitigation Measures: The following mitigation measures identified under AIR-2 would be implemented to reduce construction and operational emissions:

- **MM-AIR-1:** Construction Idling Reductions (see AIR-2 for more information).
- **MM-AIR-2:** Use of Clean Equipment and Clean Trucks During Construction (see AIR-2 for more information).
- **MM-AIR-3:** Operational Truck Idling Reductions (see AIR-2 for more information).
- **MM-AIR-4:** Use of Clean Trucks During Operations (see AIR-2 for more information).
- **MM-AIR-5:** Use of Clean Yard Equipment (see AIR-2 for more information).
- **MM-AIR-6:** Use of High-Efficiency Dust Collection Systems (see AIR-2 for more information).

In addition to these mitigation measures, Nevada would also have the option to participate in the Port's new pilot emissions reductions program (see AIR-2 for more information).

Residual Impact: Implementation of Mitigation Measures MM-AIR-1 through MM-AIR-6 would reduce construction and operational emissions through equipment controls, operational limits, and improved dust collection systems. As discussed under AIR-2, implementation of MM-AIR-2 would reduce construction-related NOx emissions to below SJVAPCD significance thresholds, and

MM-AIR-1 would provide additional reductions. Therefore, construction emissions would not result in a cumulatively considerable contribution to regional pollutant levels.

Mitigated operational emissions associated with MM-AIR-3 and MM-AIR 4 were not quantified because key emission sources affected by these measures (e.g., OGVs, rail locomotives, and off-site truck travel) are not under the direct control of Nevada Cement or the Port and depend on external factors such as fleet composition, fuel type, and regulatory requirements. As a result, the magnitude of the emission reductions cannot be reliably estimated. Although MM-AIR-5 and MM-AIR-6 would reduce emissions associated with on-site activities, these measures would not substantially reduce emissions from the primary contributors to total project emissions.

Nevada Cement is expected to have the option to participate in the Port's pilot emissions reduction program. Although the details are still being developed, Nevada Cement would provide direct funding to the Port. The Port would use the funds to implement one or more emissions reductions projects within the Port boundaries. The Port has identified electrifying the internal rail switching system and other common port equipment, which would result in substantial criteria pollutant emissions reductions and reduce pollutant burden to adjacent neighborhoods consistent with the CERP, Port Clean Air Action Plan, and General Plan. As discussed further in AIR-2, this program is expected to be available to Nevada Cement by the time the final EIR is submitted.

Although these mitigation measures are expected to reduce operational emissions, the extent of the reductions cannot be quantified with sufficient certainty because of the limited control the applicant and the Port have over key emission sources. Therefore, this analysis conservatively assumes that operational emissions would continue to exceed applicable operational SJVAPCD and BAAD thresholds and contribute to existing nonattainment conditions. The Port's Pilot Emissions Reduction Program may provide a potential way for Nevada Cement to offset some or all of its residual criteria pollutant emissions, which would be consistent with state and local plans, but the program is still under development. Therefore, impacts would remain significant and unavoidable.

3.2.3.4.2 AIR-2: Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard?

Criteria Air Pollutants

SJVAPCD has developed quantitative criteria to evaluate the significance of air emissions under CEQA. Specifically, a significant impact would occur if implementation of a project would result in emissions that exceed the SJVAPCD-established thresholds shown in Table 12. SJVAPCD's CEQA thresholds represent the emission levels that would result in a direct or indirect project impact, including impacts that are cumulatively considerable. SJVAPCD applies these thresholds separately to

three emission categories: 1) construction emissions; 2) non-permitted equipment and activities; and 3) permitted equipment and activities.

Table 13 presents the construction emissions resulting from the proposed project. As shown, construction emissions would exceed SJVAPCD significance thresholds for NOx annual emissions in 2027.

Table 13
Proposed Project Construction Annual Emissions (Unmitigated) as Compared to SJVAPCD Thresholds (tons per year)

Year	PM_{10}	$PM_{2.5}$	NOx	SOx	CO	VOC
2026	0.477	0.140	1.348	0.004	1.773	0.168
2027	1.675	0.762	**11.261**	0.063	10.167	1.167
2028	0.331	0.119	2.086	0.007	2.808	0.273
2030	0.324	0.129	2.552	0.010	3.199	0.309
2031	0.103	0.041	0.838	0.003	1.188	0.109
Significance Threshold	15	15	10	27	100	10
Significant?	No	No	**Yes**	No	No	No

Notes:
Total emissions may not add precisely due to rounding.
Emissions estimated using CalEEMod 2022.2 and USEPA/ARB methodologies.

Table 14 presents the operational emissions resulting from the proposed project, for both permitted and non-permitted emissions sources. Emissions were calculated for baseline operations and three years of operation (Year 1, Year 5, and Year 15) to account for a scaling up of operations after construction is complete. Operational non-permitted emissions include emissions from all operational sources that are exempt from stationary source air permitting, including mobile sources (trucks, ships, harbor craft, rail, on-site mobile equipment, and worker vehicles). Operational permitted emissions include emissions from any operational source subject to stationary source air permitting, including conveying/loading sources (SJVAPCD 2015a).

For comparison to thresholds, net non-permitted and permitted emissions were calculated (proposed project – baseline). As shown, the operational non-permitted emissions increment would exceed SJVAPCD significance thresholds for NOx annual emissions in Year 15. The operational permitted emissions increment would be below significance thresholds. Increments for Years 1 and 5 would be below significance thresholds for both permitted and non-permitted sources.

Table 14
Baseline (2023) and Proposed Project Operational Annual Emissions (2046), SJVAPCD, Unmitigated (tons per year)

Source Category	PM_{10}	$PM_{2.5}$	NOx	SOx	CO	VOC
Baseline						
Trucks	0.23	0.07	1.38	0.004	0.20	0.02
Ships at Berth	0.15	0.14	6.78	0.36	0.68	0.27
Ships Maneuvering	0.01	0.01	0.51	0.01	0.09	0.08
Ships Transit	0.01	0.01	0.80	0.02	0.09	0.04
Harbor Craft at Berth	0.0005	0.0005	0.0170	0.0010	0.0123	0.0009
Harbor Craft Maneuvering and Transit	0.005	0.005	0.152	0.009	0.110	0.008
Rail	0.03	0.03	0.95	0.00	0.21	0.06
Employee Vehicles	0.07	0.02	0.03	0.00	0.46	0.03
Mobile on Site	0.06	0.05	1.55	0.00	2.64	0.19
Non-Permitted Baseline Total	**0.55**	**0.33**	**12.17**	**0.42**	**4.49**	**0.70**
Conveying/Loading	0.53	0.53	NA	NA	NA	NA
Permitted Baseline Total	**0.53**	**0.53**	NA	NA	NA	NA
Proposed Project Year 1						
Trucks	0.45	0.13	0.92	0.01	0.27	0.03
Ships at Berth	0.14	0.12	6.10	0.33	0.62	0.24
Ships Maneuvering	0.02	0.02	0.92	0.02	0.16	0.14
Ships Transit	0.02	0.02	1.43	0.04	0.17	0.08
Harbor Craft at Berth	0.0002	0.0002	0.009	0.002	0.022	0.001
Harbor Craft Maneuvering and Transit	0.002	0.002	0.08	0.02	0.20	0.01
Rail	0.06	0.06	2.27	0.00	0.53	0.14
Employee Vehicles	0.08	0.02	0.02	0.00	0.36	0.02
Mobile on Site	0.01	0.01	0.86	0.00	2.06	0.10
Non-Permitted Year 1 Total	**0.78**	**0.39**	**12.61**	**0.42**	**4.38**	**0.76**
Conveying/Loading	0.99	0.99	NA	NA	NA	NA
Permitted Year 1 Total	**0.99**	**0.99**	NA	NA	NA	NA
Proposed Project Year 5						
Trucks	0.60	0.18	1.02	0.01	0.36	0.03
Ships at Berth	0.23	0.21	10.50	0.56	1.06	0.41
Ships Maneuvering	0.03	0.03	1.59	0.04	0.28	0.25
Ships Transit	0.03	0.03	2.47	0.07	0.29	0.13
Harbor Craft at Berth	0.000	0.000	0.016	0.003	0.038	0.001
Harbor Craft Maneuvering and Transit	0.00	0.00	0.14	0.03	0.34	0.01
Rail	0.11	0.12	4.43	0.00	1.25	0.24
Employee Vehicles	0.10	0.03	0.02	0.00	0.41	0.02

Source Category	PM_{10}	$PM_{2.5}$	NOx	SOx	CO	VOC
Mobile on Site	0.01	0.01	0.83	0.00	2.48	0.10
Non-Permitted Year 5 Total	**1.13**	**0.62**	**21.01**	**0.73**	**6.51**	**1.21**
Conveying/Loading	2.05	2.05	NA	NA	NA	NA
Permitted Year 5 Total	**2.05**	**2.05**	NA	NA	NA	NA
Proposed Project Year 15						
Trucks	0.89	0.27	1.60	0.01	0.55	0.05
Ships at Berth	0.40	0.37	17.96	0.96	1.81	0.71
Ships Maneuvering	0.05	0.05	2.71	0.07	0.47	0.42
Ships Transit	0.06	0.05	4.22	0.12	0.50	0.23
Harbor Craft at Berth	0.01	0.01	0.35	0.03	0.40	0.02
Harbor Craft Maneuvering and Transit	0.01	0.01	0.49	0.10	1.15	0.05
Rail	0.11	0.10	4.29	0.01	0.47	0.29
Employee Vehicles	0.13	0.03	0.02	0.00	0.46	0.02
Mobile on Site	0.01	0.01	0.87	0.01	3.23	0.11
Non-Permitted Year 15 Total	**1.67**	**0.91**	**32.52**	**1.32**	**9.04**	**1.89**
Conveying/Loading	3.44	3.44	NA	NA	NA	NA
Permitted Year 15 Total	**3.44**	**3.44**	NA	NA	NA	NA
Year 1 Increment (Proposed Project Year 1 Minus Baseline)						
Non-Permitted Equipment and Activities	**0.23**	**0.06**	**0.44**	**0.00**	**-0.11**	**0.06**
Significance Threshold	15	15	10	27	100	10
Significant?	No	No	No	No	No	No
Permitted Equipment and Activities	**0.46**	**0.46**	**NA**	**NA**	**NA**	**NA**
Significance Threshold	15	15	10	27	100	10
Significant?	No	No	NA	NA	NA	NA
Year 5 Increment (Proposed Project Year 5 Minus Baseline)						
Non-Permitted Equipment and Activities	**0.58**	**0.29**	**8.83**	**0.31**	**2.02**	**0.51**
Significance Threshold	15	15	10	27	100	10
Significant?	No	No	No	No	No	No
Permitted Equipment and Activities	**1.52**	**1.52**	**NA**	**NA**	**NA**	**NA**
Significance Threshold	15	15	10	27	100	10
Significant?	No	No	NA	NA	NA	NA
Year 15 Increment (Proposed Project Year 15 Minus Baseline)						
Non-Permitted Equipment and Activities	**1.12**	**0.58**	**20.34**	**0.90**	**4.55**	**1.19**
Significance Threshold	15	15	10	27	100	10
Significant?	No	No	**Yes**	No	No	No
Permitted Equipment and Activities	**2.91**	**2.91**	**NA**	**NA**	**NA**	**NA**
Significance Threshold	15	15	10	27	100	10
Significant?	No	No	NA	NA	NA	NA

Note:
Total emissions may not add precisely due to rounding.

Because rail and vessel activity associated with the proposed project would occur within areas managed by the SMAQMD and BAAD, respectively, operational emissions within these jurisdictions were also compared to applicable thresholds of significance. Tables 15 and 16 present the estimated operational emissions within SMAQMD, and Tables 17 and 18 present the estimated operational emissions within BAAD. As shown, daily and annual emissions within SMAQMD would be below applicable thresholds. However, within BAAD, both daily and annual emissions would exceed applicable thresholds at full operations, primarily due to OGV transit.

Table 15
Baseline (2023) and Proposed Project Operational Annual Emissions (2046), SMAQMD, Unmitigated (tons per year)

Source Category	PM_{10}	$PM_{2.5}$	NOx	SOx	CO	VOC
Baseline						
Rail Transit	0.021	0.020	0.86	7.2E-04	0.20	0.033
Proposed Project Year 1						
Rail Transit	0.047	0.046	2.2	0.0020	0.56	0.077
Proposed Project Year 5						
Rail Transit	0.10	0.14	5.2	0.0058	1.6	0.17
Proposed Project Year 15						
Rail Transit	0.059	0.057	3.6	0.022	0.0088	0.13
Year 1 Increment (Proposed Project Year 1 Minus Baseline)						
Year 1 Increment	**0.027**	**0.026**	**1.3**	**0.0012**	**0.35**	**0.044**
Significance Threshold	15	15	NA	NA	NA	NA
Significant?	No	No	NA	NA	NA	NA
Year 5 Increment (Proposed Project Year 5 Minus Baseline)						
Year 5 Increment	**0.080**	**0.12**	**4.3**	**0.0051**	**1.4**	**0.14**
Significance Threshold	15	15	NA	NA	NA	NA
Significant?	No	No	NA	NA	NA	NA
Year 15 Increment (Proposed Project Year 15 Minus Baseline)						
Year 15 Increment	**0.038**	**0.037**	**2.8**	**0.022**	**-0.19**	**0.093**
Significance Threshold	15	15	NA	NA	NA	NA
Significant?	No	No	NA	NA	NA	NA

Note:
Total emissions may not add precisely due to rounding.

Table 16
Baseline (2023) and Proposed Project Operational Average Daily Emissions (2046), SMAQMD Unmitigated (pounds per day)

Source Category	PM_{10}	$PM_{2.5}$	NOx	SOx	CO	VOC
Baseline						
Rail Transit	0.79	0.77	33	0.028	7.8	1.3
Proposed Project Year 1						
Rail Transit	0.83	0.81	39	0.034	10	1.4
Proposed Project Year 5						
Rail Transit	1.6	2.1	81	0.091	26	2.7
Proposed Project Year 15						
Rail Transit	0.79	0.77	49	0.12	34	1.7
Year 1 Increment (Proposed Project Year 1 Minus Baseline)						
Year 1 Increment	**0.041**	**0.040**	**5.4**	**0.0068**	**1.9**	**0.085**
Significance Threshold	80	82	65	NA	NA	65
Significant?	No	No	No	NA	NA	No
Year 5 Increment (Proposed Project Year 5 Minus Baseline)						
Year 5 Increment	**0.79**	**1.4**	**48**	**0.063**	**18**	**1.4**
Significance Threshold	80	82	65	NA	NA	65
Significant?	No	No	No	NA	NA	No
Year 15 Increment (Proposed Project Year 15 Minus Baseline)						
Year 15 Increment	**0.0060**	**0.0082**	**16**	**0.091**	**26**	**0.43**
Significance Threshold	80	82	65	NA	NA	65
Significant?	No	No	No	NA	NA	No

Note:
Total emissions may not add precisely due to rounding.

Table 17
Baseline (2023) and Proposed Project Operational Annual Emissions (2046), BAAD, Unmitigated (tons per year)

Source Category	PM_{10}	$PM_{2.5}$	NOx	SOx	CO	VOC
Baseline						
Ships Transit	0.061	0.056	3.6	0.10	0.63	0.37
Proposed Project Year 1						
Ships Transit	0.11	0.10	6.4	0.19	1.1	0.67
Proposed Project Year 5						
Ships Transit	0.19	0.17	11	0.33	2.0	1.1
Proposed Project Year 15						

Source Category	PM_{10}	$PM_{2.5}$	NOx	SOx	CO	VOC
Ships Transit	0.32	0.30	19	0.56	3.4	2.0
Barge and Tugboat	0.020	0.020	0.87	0.15	1.8	0.073
Year 15 Total	**0.34**	**0.32**	**19.69**	**0.71**	**5.15**	**2.03**
Year 1 Increment (Proposed Project Year 1 Minus Baseline)						
Year 1 Increment	**0.048**	**0.045**	**2.8**	**0.084**	**0.51**	**0.30**
Significance Threshold	15	10	10	NA	NA	10
Significant?	No	No	No	NA	NA	No
Year 5 Increment (Proposed Project Year 5 Minus Baseline)						
Year 5 Increment	**0.13**	**0.12**	**7.5**	**0.22**	**1.3**	**0.78**
Significance Threshold	15	10	10	NA	NA	10
Significant?	No	No	No	NA	NA	No
Year 15 Increment (Proposed Project Year 15 Minus Baseline)						
Year 15 Increment	**0.28**	**0.26**	**16.14**	**0.60**	**4.51**	**1.66**
Significance Threshold	15	10	10	NA	NA	10
Significant?	No	No	**Yes**	NA	NA	No

Note:
Total emissions may not add precisely due to rounding.

Table 18
Baseline (2023) and Proposed Project Operational Average Daily Emissions (2046), BAAD Unmitigated (pounds per day)

Source Category	PM_{10}	$PM_{2.5}$	NOx	SOx	CO	VOC
Baseline						
Ships Transit	0.47	0.43	27.31	0.81	4.88	2.84
Proposed Project Year 1						
Ships Transit	0.84	0.77	49.16	1.45	8.79	5.12
Proposed Project Year 5						
Ships Transit	1.44	1.33	84.67	2.50	15.13	8.82
Proposed Project Year 15						
Ships Transit	2.47	2.27	144.76	4.28	25.87	15.07
Barge and Tugboat	0.16	0.16	6.71	1.14	13.73	0.56
Year 15 Total	**2.63**	**2.43**	**151.47**	**5.42**	**39.59**	**15.63**
Year 1 Increment (Proposed Project Year 1 Minus Baseline)						
Year 1 Increment	**0.37**	**0.34**	**21.85**	**0.65**	**3.90**	**2.28**
Significance Threshold	82	54	54	NA	NA	54
Significant?	No	No	No	NA	NA	No
Year 5 Increment (Proposed Project Year 5 Minus Baseline)						

Source Category	PM_{10}	$PM_{2.5}$	NOx	SOx	CO	VOC
Year 5 Increment	**0.98**	**0.90**	**57.36**	**1.70**	**10.25**	**5.97**
Significance Threshold	82	54	54	NA	NA	54
Significant?	No	No	**Yes**	NA	NA	No
Year 15 Increment (Proposed Project Year 15 Minus Baseline)						
Year 15 Increment	**2.16**	**2.00**	**124.16**	**4.62**	**34.71**	**12.79**
Significance Threshold	82	54	54	NA	NA	54
Significant?	No	No	**Yes**	NA	NA	No

Note:
Total emissions may not add precisely due to rounding.

Ambient Air Quality

SJVAPCD recommends the use of screening level criteria for evaluating localized ambient air quality impacts. Screening levels are intended to provide a conservative comparison of project emissions to levels that would not be expected to substantially affect ambient air quality or interfere with attainment of the NAAQS or CAAQS. Exceedance of screening levels indicates that project emissions could contribute to elevated ambient pollutant concentrations in the vicinity of the proposed project and that additional modeling should be conducted (SJVAPCD 2018).

Construction would exceed the SJVAPCD ambient air quality screening levels for NOx and CO in 2027 (Table 19).

Table 19
Proposed Project Construction Maximum Daily Emissions (Unmitigated) as Compared to SJVAPCD Screening Levels (pounds per day)

Year	PM_{10}	$PM_{2.5}$	NOx	SOx	CO	VOC
2026	23.351	10.118	97.486	0.273	98.591	10.785
2027	31.302	10.672	**488.507**	16.024	**144.486**	33.618
2028	4.689	1.856	37.901	0.120	45.261	4.454
2030	3.805	1.652	35.582	0.140	42.906	4.324
2031	1.999	0.853	19.521	0.075	25.343	2.311
Screening Levels	100	100	100	100	100	100
Exceed?	No	No	**Yes**	No	**Yes**	No

Notes:
Total emissions may not add precisely due to rounding.
Emissions estimated using CalEEMod 2022.2 and USEPA/ARB methodologies.

As shown in Table 20, the proposed project's operational non-permitted daily emissions would exceed screening levels for NOx in Years 1, 5, and 15, whereas the project's permitted daily emissions

would be below screening levels for all years and pollutants. Consistent with SJVAPCD guidance, when daily emission increases exceed the screening levels for both construction and one of the operational categories (non-permitted or permitted), the AAQA should evaluate contributions from sources from both operational categories but not construction. Therefore, a more detailed evaluation of ambient air quality conditions and project operational contributions was conducted for NO_2, CO, SO_2, and PM (PM_{10} and $PM_{2.5}$) (SJVAPCD 2018).

Table 20
Baseline (2023) and Proposed Project Operational Maximum Daily Emissions (2046) as Compared to SJVAPCD Screening Levels, Unmitigated (pounds per day)

Source Category	PM_{10}	$PM_{2.5}$	NOx	SOx	CO	VOC
Baseline						
Trucks	1.74	0.55	10.65	0.03	1.50	0.14
Ships at Berth	5.00	4.61	225.91	12.10	22.78	8.91
Ships Maneuvering	1.03	0.95	51.22	1.36	8.90	7.95
Ships Transit	1.13	1.04	79.59	2.26	9.36	4.28
Harbor Craft at Berth	0.10	0.10	3.41	0.21	2.46	0.18
Harbor Craft Maneuvering and Transit	0.46	0.46	15.24	0.92	10.99	0.80
Rail	1.05	0.99	36.68	0.03	8.17	2.43
Employee Vehicles	0.36	0.09	0.20	0.01	3.23	0.16
Mobile on Site	0.47	0.44	13.18	0.06	37.10	1.73
Non-Permitted Baseline Total	**11.36**	**9.24**	**436.08**	**16.97**	**104.50**	**26.58**
Conveying/Loading	18.53	18.53	0.00	0.00	0.00	0.00
Permitted Baseline Total	**18.53**	**18.53**	**0.00**	**0.00**	**0.00**	**0.00**
Proposed Project Year 1						
Trucks	3.44	1.03	7.10	0.05	2.06	0.20
Ships at Berth	10.01	9.22	451.83	24.20	45.56	17.82
Ships Maneuvering	1.03	0.95	51.22	1.36	8.90	7.95
Ships Transit	1.13	1.04	79.59	2.26	9.36	4.28
Harbor Craft at Berth	0.05	0.05	2.02	0.41	4.96	0.19
Harbor Craft Maneuvering and Transit	0.11	0.11	4.53	0.92	11.08	0.43
Rail	1.62	1.51	55.61	0.04	12.60	4.01
Employee Vehicles	0.43	0.11	0.12	0.01	2.52	0.12
Mobile on Site	0.16	0.15	7.87	0.06	33.04	1.03
Non-Permitted Year 1 Total	**17.97**	**14.16**	**659.88**	**29.30**	**130.07**	**36.03**
Conveying/Loading	21.36	21.36	0.00	0.00	0.00	0.00
Permitted Year 1 Total	**21.36**	**21.36**	**0.00**	**0.00**	**0.00**	**0.00**
Proposed Project Year 5						
Trucks	4.64	1.40	7.81	0.07	2.79	0.27

Source Category	PM_{10}	$PM_{2.5}$	NOx	SOx	CO	VOC
Ships at Berth	10.01	9.22	451.83	24.20	45.56	17.82
Ships Maneuvering	1.03	0.95	51.22	1.36	8.90	7.95
Ships Transit	1.13	1.04	79.59	2.26	9.36	4.28
Harbor Craft at Berth	0.06	0.06	2.48	0.45	5.40	0.22
Harbor Craft Maneuvering and Transit	0.11	0.11	4.53	0.92	11.08	0.43
Rail	2.57	2.75	95.03	0.09	24.96	6.26
Employee Vehicles	0.56	0.14	0.12	0.01	2.91	0.13
Mobile on Site	0.13	0.13	7.42	0.06	33.02	0.99
Non-Permitted Year 5 Total	**20.24**	**15.78**	**700.02**	**29.40**	**143.97**	**38.34**
Conveying/Loading	21.88	21.88	0.00	0.00	0.00	0.00
Permitted Year 5 Total	**21.88**	**21.88**	**0.00**	**0.00**	**0.00**	**0.00**
Proposed Project Year 15						
Trucks	6.88	2.07	12.33	0.10	4.26	0.40
Ships at Berth	10.01	9.22	451.83	24.20	45.56	17.82
Ships Maneuvering	1.03	0.95	51.22	1.36	8.90	7.95
Ships Transit	1.13	1.04	79.59	2.26	9.36	4.28
Harbor Craft at Berth	0.02	0.02	0.86	0.18	2.10	0.08
Harbor Craft Maneuvering and Transit	0.11	0.11	4.53	0.92	11.08	0.43
Rail	2.96	2.74	101.48	0.12	34.73	8.07
Employee Vehicles	0.69	0.17	0.13	0.01	3.30	0.12
Mobile on Site	0.12	0.12	7.24	0.06	32.92	0.98
Non-Permitted Year 15 Total	**22.94**	**16.43**	**709.20**	**29.19**	**152.20**	**40.13**
Conveying/Loading	21.71	21.71	0.00	0.00	0.00	0.00
Permitted Year 15 Total	**21.71**	**21.71**	**0.00**	**0.00**	**0.00**	**0.00**
Year 1 Increment (Proposed Project Year 1 Minus Baseline)						
Non-Permitted Equipment and Activities	**6.61**	**4.92**	**223.80**	**12.33**	**25.57**	**9.45**
Screening Level	100	100	100	100	100	100
Exceed?	No	No	**Yes**	No	No	No
Permitted Equipment and Activities	**2.83**	**2.83**	**NA**	**NA**	**NA**	**NA**
Screening Level	100	100	100	100	100	100
Exceed?	No	No	No	No	No	No
Year 5 Increment (Proposed Project Year 5 Minus Baseline)						
Non-Permitted Equipment and Activities	**8.88**	**6.54**	**263.94**	**12.43**	**39.47**	**11.76**
Screening Level	100	100	100	100	100	100
Exceed?	No	No	**Yes**	No	No	No
Permitted Equipment and Activities	**3.35**	**3.35**	NA	NA	NA	NA
Screening Level	100	100	100	100	100	100

Source Category	PM_{10}	$PM_{2.5}$	NOx	SOx	CO	VOC
Exceed?	No	No	No	No	No	No
Year 15 Increment (Proposed Project Year 15 Minus Baseline)						
Non-Permitted Equipment and Activities	**11.58**	**7.19**	**273.12**	**12.22**	**47.70**	**13.55**
Screening Level	100	100	100	100	100	100
Exceed?	No	No	**Yes**	No	No	No
Permitted Equipment and Activities	**3.18**	**3.18**	**NA**	**NA**	**NA**	**NA**
Screening Level	100	100	100	100	100	100
Exceed?	No	No	No	No	No	No

Note:
Total emissions may not add precisely due to rounding.

Table 21 presents the maximum estimated project-related off-site pollutant concentrations combined with background levels compared to the AAQS. Table 22 presents the contribution of project emissions relative to the Significant Impact Levels (SILs). Project ambient impacts below the SILs would be considered less than significant even if AAQS would be exceeded. Additional details of the AAQA are included in Appendix C-3.

Table 21
Maximum Pollutant Concentrations Associated with Proposed Project Operation Compared to the AAQS

Pollutant	Averaging Time	Background Concentration ($\mu g/m^3$)[1]	Proposed Project Maximum Concentration Increment ($\mu g/m^3$)[2]	Total Concentration ($\mu g/m^3$)[3]	CAAQS $\mu g/m^3$)	NAAQS ($\mu g/m^3$)	Exceeds AAQS?
PM_{10}	24-Hour	81	1.8	**82.8**	50	150	**Yes**
PM_{10}	Annual	29	3.5	**32.5**	20	NA	**Yes**
$PM_{2.5}$	24-Hour[4]	34	1.4	**35.4**	NA	35	**Yes**
$PM_{2.5}$	Annual (State)	10.7	3.5	**14.2**	12	NA	**Yes**
$PM_{2.5}$	Annual (National)	10.3	3.5	**13.8**	NA	9	**Yes**
CO	1-Hour	2,985	280	3,265	23,000	40,000	No
CO	8-Hour	1,952	191	2,143	10,000	10,000	No
NO_2	1-Hour (State)	85	10	95.5	339	NA	No
NO_2	1-Hour (National)[5]	67	12	79.3	NA	188	No

Pollutant	Averaging Time	Background Concentration (µg/m³)[1]	Proposed Project Maximum Concentration Increment (µg/m³)[2]	Total Concentration (µg/m³)[3]	CAAQS µg/m³)	NAAQS (µg/m³)	Exceeds AAQS?
NO_2	Annual	17	1.9	18.9	57	100	No
SO_2	1-Hour (State)	28	27	54.8	655	NA	No
SO_2	1-Hour (National)	12	27	38.8	NA	196	No
SO_2	24-Hour	6	0.8	6.8	105	NA	No

Notes:

1. Obtained from actual monitoring data from 2022 to 2024.
2. Modeled with AERMOD. Proposed Project Maximum Concentration Increment = Proposed Project Year 2046 Concentration minus CEQA Baseline Year 2023 Concentration, calculated at each modeled receptor grid point. The maximum concentration increment from all modeled receptor grid points is displayed. Unless otherwise footnoted, the Proposed Project and Baseline concentrations represent the maximum modeled concentrations over the five years of meteorological data at each receptor.
3. Total Concentration = Background Concentration + Proposed Project Maximum Concentration Increment.
4. Modeled as the 98th percentile (8th highest) daily concentration for each year of meteorological data, averaged over the 5 years of meteorological data.
5. Modeled as the 98th percentile (8th highest) of the 1-hour daily maximum concentrations for each year of meteorological data, averaged over the five years of meteorological data.

Table 22
Maximum Pollutant Concentrations Associated with Proposed Project Operation, Compared to the SILs

Pollutant	Averaging Time	Proposed Project Maximum Concentration Increment (µg/m³)[1]	SIL (µg/m³)[2,3]	Exceeds SIL?
PM_{10}	24 Hour	1.8	5	No
PM_{10}	Annual	**3.5**	1	**Yes**
$PM_{2.5}$	24 Hour	**1.7**	1.2	**Yes**
$PM_{2.5}$	Annual	**3.5**	0.13	**Yes**

Notes:

1. Modeled with AERMOD. Proposed Project Maximum Concentration Increment = Proposed Project Year 2046 Concentration minus CEQA Baseline Year 2023 Concentration, calculated at each modeled receptor grid point. The maximum concentration increment from all modeled receptor grid points is displayed. The proposed project and baseline concentrations represent the maximum modeled concentrations over the five years of meteorological data at each receptor.
2. Source: SJVAPCD 2024.
3. Proposed project impacts are compared to the SILs for non-fugitive sources because non-fugitive sources are the dominant contributors to the Proposed Project's maximum PM_{10} and $PM_{2.5}$ concentrations.

As shown, total concentrations (proposed project plus background) for CO, NO_2, and SO_2 would remain below applicable AAQS. Therefore, the proposed project would not be expected to result in or contribute to violations of AAQS for these pollutants. However, total concentrations for PM_{10} and $PM_{2.5}$ would exceed applicable AAQS, reflecting existing nonattainment conditions within the SJVAB. In addition, the proposed project's incremental contribution to PM_{10} and $PM_{2.5}$ concentrations would exceed the SILs, indicating that the proposed project would result in a measurable increase in ambient PM concentrations.

Because the SJVAB is designated as nonattainment for PM and project emissions of PM would contribute to existing violations of AAQS, the proposed project would contribute to existing nonattainment conditions and hinder attainment of air quality standards.

In summary, the proposed project would exceed SJVAPCD significance emission thresholds for NOx, and the AAQA indicates that project emissions would contribute to existing nonattainment conditions for PM_{10} and $PM_{2.5}$ within the SJVAB. In addition, operational NOx emissions associated with vessel transit would exceed applicable thresholds within the BAAD. Emissions within SMAQMD would be below applicable thresholds.

Impact Determination: Because the proposed project would exceed SJVAPCD significance thresholds for NOx and result in a measurable contribution to elevated ambient PM (PM_{10} and $PM_{2.5}$) concentrations, it would contribute to existing nonattainment conditions and hinder attainment of O_3 and PM standards within the SJVAB. In addition, operational emissions would exceed applicable NOx thresholds within the BAAD. Therefore, impacts would be considered significant.

Mitigation Measures: The following mitigation measures would be implemented to reduce potential impacts:

- **MM-AIR-1: Construction Idling Reductions.** Nevada Cement will require construction contractors to minimize heavy-duty construction idling time to 2 minutes. Exceptions include vehicles that need to idle to perform work (such as a crane providing hydraulic power to the boom), vehicles being serviced, or vehicles in a queue waiting for work. The Port will include this measure as a lease measure and will be required as a specification in all construction contracts issued for the project by Nevada Cement. Nevada Cement shall perform random periodic checks of construction equipment and report compliance.
- **MM-AIR-2: Use of Clean Equipment and Clean Trucks During Construction.** All off-road diesel-powered heavy equipment exceeding 50 horsepower used to construct the proposed project will be equipped with Tier-4 engines, except for specialized equipment or when Tier-4 engines are not available through at least two commercial equipment rental facilities in the SJVAB. In place of Tier-4 engines for equipment exceeding 50 horsepower, off-road diesel-powered heavy equipment will incorporate retrofits such that emission reductions

achieved equal or exceed that of a Tier-4 engine. In addition, all heavy-duty on-road trucks used during construction shall be model year 2014 or newer, with a preference for zero-emission trucks where available. The contractor shall also prioritize the use of zero-emission construction equipment. This measure will be included as a requirement in the Port's lease and the measure will be required as a specification in all construction contracts issued for the project by Nevada Cement. Nevada Cement shall perform random periodic checks of construction equipment and report compliance.

- **MM-AIR-3: Operational Truck Idling Reductions.** Nevada Cement will require trucks to minimize idling time to 2 minutes while on terminal. These requirements will be posted on site and included as a contract provision. This measure will be included as a requirement in the Port's lease. Nevada Cement shall perform random periodic checks of trucks and report compliance annually to the Port.
- **MM-AIR-4: Use of Clean Trucks During Operations.** Nevada Cement will encourage the use of model year 2017 or newer trucks and further encourage its customers to use zero-emission trucks to transport cargo. Nevada Cement will require all trucks be in compliance with ARB air quality regulations for on-road trucks, including ARB's Heavy-Duty (Tractor-Trailer) Greenhouse Gas Regulation, Periodic Smoke Inspection Program, and the Statewide Truck and Bus Regulation. Nevada Cement will also educate customers about the SJVAPCD Truck Replacement Program and ARB's Advanced Clean Truck Program, including funding opportunities, via direct or electronic mailings. Nevada Cement will post a copy of the SJVAPCD Truck Replacement Program information (currently available at http://valleyair.org/grants/truck-replacement.htm) and applicable ARB regulations at the terminal. These requirements will be posted on site and included as a contract provision. This measure will be included as a requirement in the Port's lease. Nevada Cement shall perform random periodic checks of trucks and report compliance annually to the Port.
- **MM-AIR-5: Use of Clean Yard Equipment.** Nevada Cement will require terminal and yard equipment, including yard mules, aerial lifts, forklifts, sweeper/scrubbers, shuttlewagons, and loaders, to be the cleanest available equipment (for future purchases). Considerations for clean equipment will include a first preference for zero-emission equipment, a second preference for near-zero equipment, and then preference for the cleanest available equipment if neither zero nor near-zero equipment are available or feasible. Nevada Cement will ensure the proper infrastructure to support such equipment is available. This measure will be included as a requirement in the Port's lease. Nevada Cement shall report compliance annually to the Port.
- **MM-AIR-6: Use of High-Efficiency Dust Collection Systems.** Prior to operation of modified or new material handling equipment, Nevada Cement shall ensure that all new or replacement dust collection systems (e.g., baghouses) associated with the proposed project are designed and operated to achieve high PM control efficiency. Dust collection systems shall utilize high-efficiency filter media (e.g., membrane or equivalent technology) designed to achieve a

control efficiency of at least 99% for PM_{10} and $PM_{2.5}$, and shall be designed to meet or exceed a maximum outlet concentration of 0.005 grain per dry standard cubic foot, consistent with BACT or permit requirements, as applicable. All systems shall be properly maintained and operated according to manufacturer specifications to ensure continued performance, and filter media shall be replaced at the end of its useful life with equivalent or more effective control technology. Nevada Cement shall provide documentation of filter specifications and control efficiency to the Port prior to operation of the applicable equipment. This measure will be included as a requirement in the Port's lease. Nevada Cement shall report compliance annually to the Port.

Residual Impact: Table 23 presents the mitigated construction emissions, which reflect implementation of MM-AIR-2 (use of Tier-4 and cleaner construction equipment). This measure would substantially reduce construction-related NOx emissions to below SJVAPCD significance thresholds. MM-AIR-1 (construction idling reductions) provides additional reductions beyond those shown. Therefore, construction-related air quality impacts would be reduced to less than significant with mitigation.

Table 23
Proposed Project Construction Annual Emissions, SJVAPCD, Mitigated (Tons per Year)

Year	PM_{10}	$PM_{2.5}$	NOx	SOx	CO	VOC
2026	0.463	0.127	0.994	0.004	2.008	0.132
2027	1.537	0.637	7.952	0.063	12.590	0.816
2028	0.318	0.107	1.792	0.007	3.051	0.245
2030	0.303	0.110	2.017	0.010	4.357	0.228
2031	0.097	0.036	0.696	0.003	1.655	0.082
Significance Threshold	15	15	10	27	100	10
Significant?	No	No	No	No	No	No

Notes:
Total emissions may not add precisely due to rounding.
Emissions estimated using CalEEMod 2022.2 and USEPA/ARB methodologies.
Emissions above reflect Tier 4 engines for equipment greater than 200 horsepower.

Mitigated operational emissions were not quantified because many of the primary operational emission sources (e.g., OGVs, rail locomotives, and a substantial portion of truck travel) are not under the direct control of Nevada Cement or the Port and depend on external factors such as fleet composition, fuel type, and regulatory requirements. Although MM-AIR-3 through MM-AIR-6 would reduce emissions associated with on-site activities, these measures would not substantially reduce emissions from the primary contributors to total project emissions.

As shown in Table 14, the proposed project's operational emissions in the SJVAB are mainly the result of vessel emissions, followed by rail and truck emissions.

A substantial portion of project-related emissions—particularly those associated with OGVs—are not within the control of Nevada Cement or the Port. ARB regulates marine vessels through a number of comprehensive measures, including fuel and engine standards, and the 2020 At-Berth Regulation, which was enacted to reduce at-berth emissions from container ships, passenger ships, refrigerated-cargo ships, and tanker vessels. Bulk cargo vessels, such as the ones that call at Nevada Cement are regulated under the 2020 At-Berth Regulation but are not required to reduce emissions at berth.

Although not required under the 2020 At-Berth Regulation, exhaust gas scrubber systems, in which a bonnet scrubber is placed over a ship's stack either from a barge or from a system placed on the terminal adjacent to the berth, and shorepower were considered for this project. There are several issues, including equipment availability and vessel operations, that limit the feasibility of these measures for the proposed project. Exhaust gas scrubber systems need to be certified for use by ARB, and none of the companies that have developed vessel bonnets have been certified for use on bulk cargo vessels; because the At-Berth Regulation does not include emissions reductions for this class of vessels, it is unlikely that any company will pursue certification absent regulation. For shorepower, the vessel calls related to the proposed project are one-time visits, meaning they would call at the Port only one time per year. Unlike larger coastal ports, which are home to captive vessel strings that make multiple repeat visits to the same port each year, the vessels that call at the Port are part of the "tramp fleet"; they are not under direct contract to Nevada Cement but are instead calling at the Port to discharge or receive product based on third-party arrangements. Upgrading these vessels to accept shorepower would be beyond the control of Nevada Cement and would be cost prohibitive for the vessel owners given the number of terminals the vessels visit and the lack of universal shorepower connections. In addition, the berth is not configured with large available backlands to support a terminal-based exhaust gas scrubber system or shorepower systems.

Although regulatory programs are expected to reduce emissions over time in California, the proposed project does not have the authority to require vessel fleet turnover, fuel changes beyond regulatory requirements, or routing modifications. As a result, emissions associated with vessel transit and maneuvering would continue to contribute to regional pollutant levels and would not be substantially reduced by project-level mitigation.

Because there are only two mainline rail companies (UP and BNSF) that service the entire rail network, mainline locomotives are regulated by the federal and state governments. ARB is addressing rail emissions through a statewide rail plan, which includes agreements directly with the two mainline locomotive companies. The 2005 Statewide Railyard Agreement included a statewide idle reduction program, maximized the use of state and federal ultra-low-sulfur (15 ppm maximum) diesel fuel, and established a statewide visible emissions reduction and repair program. To achieve

further emissions reductions would require purchases of new equipment or a move to electrification, which is beyond the scope of one terminal project.

Although truck idling restrictions would reduce emissions slightly, truck emissions are being generated mainly through transit; therefore, MM-AIR-3 would not reduce emissions below significance. Through MM-AIR-4, use of cleaner trucks (defined as model year 2017 or newer) implemented through contracts with material suppliers would result in reduced transit emissions. However, it is unknown how many such trucks would visit the terminal. Although heavy-duty electric trucks are under development, they are not readily available, and it is unknown whether they would be available by 2030.

Implementation of MM-AIR-5 would reduce emissions from terminal equipment. Although not a significant source of emissions, transitioning to clean cargo-handling equipment is consistent with state and regional plans.

Implementation of MM-AIR-6 would reduce PM emissions from material handling operations. Upgrading to modern, high-efficiency filter media would reduce outlet PM concentrations and directly address the modeled exceedance of AAQS associated with stationary sources at the facility. However, though this measure would reduce on-site PM emissions, it would not fully offset the proposed project's overall contribution to ambient PM concentrations, which are also influenced by mobile sources and regional background levels.

Because operational emissions would continue to exceed SJVAPCD and BAAD thresholds and result in a measurable contribution to elevated ambient PM concentrations within the SJVAB even with the implementation of all feasible mitigation, impacts would remain significant and unavoidable.

Participation in the Port's Pilot Emissions Reductions Program: Separate from the mitigation measures identified for the proposed project, the Port is developing a voluntary pilot emissions reduction program that may be available to Nevada Cement after the program is finalized and adopted. The pilot program is not a mitigation measure for the proposed project. This DEIR does not assume or rely on Nevada Cement's participation, or on any emissions reductions that could result from the program, in evaluating the proposed project's impacts, determining the feasibility of mitigation, or reaching its significance conclusions.

The Port is developing a pilot program that will allow Port tenants to address residual emissions that cannot be feasibly mitigated through traditional CEQA measures. Similar in concept to the SJVAPCD's Voluntary Emissions Reductions Agreement (VERA) program, such a program would provide a mechanism for tenants to fund surplus emission reduction projects within the Port that achieve verifiable reductions in criteria pollutant emissions. Under this program, tenants, after applying all available direct mitigation, may provide funds based on a standardized rate tied to emissions (e.g., cost per ton of NOx reduced). These funds would be used to implement projects that

achieve emissions reductions at or near the Port, with a focus on benefiting local communities. The Port is currently exploring several emissions reduction initiatives that could be funded through this program, including the following:

- Electric switcher locomotives serving Port tenants
  - Includes associated charging infrastructure
- Electric cranes
- Electric yard equipment used at public berths
  - Includes associated charging infrastructure
- Renewable energy projects

Because these emissions reduction initiatives primarily involve electrification, they would also result in reductions in GHG emissions and support consistency with state climate goals. The pilot program is currently being finalized and is expected to be available to Nevada Cement for participation in the future. Nevada Cement has expressed an interest in participating in the program after it is adopted.

3.2.3.4.3 AIR-3: Would the project expose sensitive receptors to substantial pollutant concentrations?

A significant impact would occur if the proposed project would emit TACs that could result in a substantial increase in health risks to sensitive receptors, including both carcinogenic and non-carcinogenic risks. Consistent with SJVAPCD guidance, a project would have a significant impact if it would do either of the following:

- Result in ground-level concentrations of carcinogenic TACs that would equate to an incremental cancer risk greater than 20 in one million for the maximally exposed individual.
- Increase ground-level concentrations of non-carcinogenic TACs that would result in a chronic or acute hazard index (HI) greater than 1.0 (SJVAPCD 2015b).

Impacts to sensitive receptors are typically evaluated in terms of exposure to TACs. The primary TAC associated with the proposed project is DPM, which is generated from the combustion of diesel fuel in construction equipment, on-road trucks, locomotives, marine vessels, and other diesel-fueled equipment. ARB identifies DPM as a TAC and uses PM emissions from diesel exhaust as a surrogate for DPM. Because a large fraction of DPM is within the $PM_{2.5}$ size range, exposure to DPM is associated with both cancer and non-cancer health effects, including respiratory and cardiovascular impacts.

Health effects from carcinogenic TACs are described in terms of individual cancer risk, which is based on a 70-year lifetime exposure to TACs. More than 90% of DPM is less than 1 micrometer in diameter and is thus a subset of $PM_{2.5}$. $PM_{2.5}$ comes from a variety of sources, but primarily from the burning of carbon-based fuels, such as gasoline, diesel, and wood. Numerous scientific studies have linked exposure to airborne $PM_{2.5}$ to increased severity of asthma attacks, development of chronic bronchitis, decreased lung function in children, respiratory and cardiovascular hospitalizations, and

even premature death in people with existing heart or lung disease (ARB 2026d). Because DPM is a subset of $PM_{2.5}$, DPM also contributes to the same non-cancer health effects as $PM_{2.5}$ exposure. These effects include premature death, hospitalizations, and emergency department visits for exacerbated chronic heart and lung disease, including asthma, increased respiratory symptoms, and decreased lung function in children. Several studies suggest that exposure to DPM may also facilitate development of new allergies. Those most vulnerable to non-cancer health effects are children whose lungs are still developing and the elderly, who often have chronic health problems (ARB 2026d).

The nearest sensitive receptors include residential uses located approximately 350 feet to the south of the property boundary. An HRA was conducted to evaluate potential impacts to nearby sensitive receptors for combined construction and operation based on SJVAPCD guidance (SJVAPCD 2020). The HRA evaluated cancer risk, as well as chronic and acute hazard indices, using project-specific emissions, meteorological data from the Stockton Metropolitan Airport, and receptor locations. Dispersion modeling was conducted using AERMOD, and health risk calculations were performed using HARP2. A coarse receptor grid with receptor spacing ranging 50 to 500-meters, depending on the distance from the project site, was used across the study area, with refined 25-meter spacing in areas of higher concentration to better characterize maximum impacts at nearby sensitive receptors.

The HRA included health risks from proposed project construction and operations. Construction activities would result in temporary emissions of DPM and other TACs from construction equipment, marine work vessels, on-road haul trucks, paving off-gassing, and worker vehicles. Operational emissions included in the HRA would result from ongoing mobile source activity, including trucks, locomotives (line-haul and switching), OGVs, commercial harbor craft, and on-site equipment. Additional details of the HRA are included in Appendix C-4.

Table 24 presents the results of the HRA. As shown, the maximum incremental cancer risk, chronic HI, and acute HI for the maximally exposed individual would all be below SJVAPCD thresholds of significance. Therefore, the proposed project would not expose sensitive receptors to substantial pollutant concentrations.

Table 24
Maximum Health Risk Values Associated with Proposed Project Construction and Operation (Unmitigated)

Receptor Type[1]	Acute Hazard Index[2]	Chronic Hazard Index[3]	8-Hour Chronic Hazard Index[4]	Cancer Risk (per million)[5]
Residential	0.01	0.09	0.003	17.3
Off-Site Worker	0.03	0.38	0.01	12.1
Sensitive[6]	0.006	0.04	0.001	6.0
Significance Threshold	1.0	1.0	1.0	20

Receptor Type[1]	Acute Hazard Index[2]	Chronic Hazard Index[3]	8-Hour Chronic Hazard Index[4]	Cancer Risk (per million)[5]
Threshold Exceeded?	No	No	No	No

Notes:

1. All displayed health risk values are for the maximally exposed individual and represent the proposed project increment (project minus baseline).
2. The maximum acute hazard indices for all receptor types would occur during proposed project construction.
3. The maximum chronic hazard indices for all receptor types would occur during proposed project operation.
4. The maximum 8-hour chronic hazard indices for all receptor types would occur during proposed project operation.
5. Cancer risks were evaluated over a 70-year exposure period for residential and sensitive receptors, and over a 40-year exposure period for off-site workers. Therefore, the displayed cancer risk values include contributions from both project construction and operation.
6. Sensitive receptors were conservatively evaluated with residential exposure assumptions.

Impact Determination: Because cancer risk, chronic HI, and acute HI are below the respective SJVAPCD thresholds, impacts related to exposure of sensitive receptors to TACs would be less than significant.

Mitigation Measures: Although mitigation is not required to meet health risk thresholds, MM-AIR-1 through MM-AIR-6 are included as part of the proposed project and would further reduce potential impacts:

- **MM-AIR-1: Construction Idling Reductions** (see AIR-2 for more information).
- **MM-AIR-2: Use of Clean Equipment and Clean Trucks During Construction** (see AIR-2 for more information).
- **MM-AIR-3: Operational Truck Idling Reductions (**see AIR-2 for more information).
- **MM-AIR-4: Use of Clean Trucks During Operations** (see AIR-2 for more information).
- **MM-AIR-5: Use of Clean Yard Equipment** (see AIR-2 for more information).
- **MM-AIR-6: Use of High-Efficiency Dust Collection Systems** (see AIR-2 for more information).

Residual Impact: Impacts would be less than significant.

3.2.3.4.4 AIR-4: Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

SJVAPCD's CEQA guidance defines a significant odor impact as one that creates objectionable odors affecting a substantial number of people. SJVAPCD identifies certain land uses (e.g., wastewater treatment plants, landfills, composting facilities, and food processing plants) as common sources of objectionable odors and recommends separation distances (typically up to 1 mile) to avoid odor impacts (SJVAPCD 2015a). Cement loading and bulk material handling operations are not identified as typical sources of substantial odor emissions.

As noted in SJVAPCD guidance, the list of odor-generating land uses is not exhaustive, and projects located within 1 mile of sensitive receptors should be evaluated for potential odor impacts. The nearest sensitive receptors to the project site are residential uses located approximately 350 feet to

the south of the property boundary. Prevailing winds are predominantly from the northwest, west-northwest, and west and would occasionally carry project emissions towards the closest receptors.

During construction, diesel exhaust from off-road equipment and on-road vehicles could generate temporary odors. However, construction activities would occur over a relatively large area and would be intermittent, such that diesel equipment would not operate continuously in one location at levels sufficient to generate persistent or objectionable odors affecting a substantial number of people.

During operation, potential odor sources would include diesel exhaust from trucks, locomotives, and marine vessels. Bulk material handling (cementitious products) is not typically associated with strong odors, and material transfer would occur within enclosed systems designed to minimize fugitive emissions. Although some diesel exhaust odors may be intermittently perceptible at nearby receptors, these emissions would be transient and would not result in sustained or objectionable odor conditions affecting a substantial number of people.

Impact Determination: Because the proposed project does not include typical odor-generating land uses and any odors associated with construction and operation would be temporary, intermittent, and limited in intensity, the proposed project would not result in objectionable odors affecting a substantial number of people. Impacts would be less than significant.

Mitigation Measures: None required.

Residual Impact: Impacts would be less than significant.

3.3 Biological Resources

This section describes existing biological resources conditions, applicable regulations, and potential impacts of the proposed project on biological resources.

For the purposes of this analysis, the study area includes both upland and aquatic areas. The upland portion includes the project site—comprising the proposed lease area (Figure 3), ground disturbance areas (Figure 6), potential laydown and staging areas (Figure 11), above-water Berths 2 and 3/4, and rail trestle improvement areas—as well as adjacent areas and areas that may be affected by construction noise. The aquatic portion includes in-water Berths 2 and 3/4 and rail trestle improvement areas as well as adjoining areas of the San Joaquin River that may be affected by construction activities.

3.3.1 Environmental Setting

This section describes the existing biological setting of the project area, including habitat communities, special-status species, and other biological resources that may be affected by the proposed project.

Biological conditions in the project area were characterized based on a reconnaissance survey conducted on October 17, 2019, for the *Lehigh Southwest Stockton Terminal Project Draft EIR* (Port 2020), which evaluated the same project site (now owned and operated by Nevada Cement). The survey assessed habitat conditions, the presence of jurisdictional waters and wetlands, and the potential for special-status species or sensitive habitats (Anchor QEA 2019). Given the continued industrial use of the site and the absence of substantial changes in land use or habitat conditions since that time, the survey findings remain representative of current biological conditions.

Survey searches of the following resources were conducted in order to identify special-status species with potential to occur in the study area:

- USFWS Information for Planning and Consultation report (USFWS 2025)
- CDFW California Natural Diversity Database (CNDDB; CDFW CNDDB 2025)
- *Fall Midwater Trawl Monthly Abundance Indices* (CDFW 2025a)
- NMFS's EFH Mapper (NMFS 2025a)
- NMFS Critical Habitat Mapper (NMFS 2025b)
- Eelgrass distribution in California dataset (CDFW 2025b)

3.3.1.1 Habitat Communities

The proposed project is located within the City's urban core, which is characterized by a mix of heavy industrial uses with limited landscape features, older residential neighborhoods, neighborhood commercial shopping centers, and a variety of other commercial and industrial parcels. In the area surrounding the project site, the Port leases property for a variety of industrial uses, characterized by the presence of storage tanks, maritime terminals, cementitious materials storage structures, grain silos, railroad facilities, large storage buildings, and stockpiles of various commodities.

The existing Nevada Cement terminal is bound by the San Joaquin River, Harbor Street, Port Road 1, and Port Road 2, north of Washington Street. The site is almost entirely developed and contains a concrete dock structure (Berth 2) with a ship unloader (Photograph 2), cementitious material storage facilities (Photograph 4), an elevated steel tank that is used for a railcar loading station (Photograph 5), various operational buildings that house administrative offices, employee facilities, electrical equipment and control rooms, maintenance shops, and storage areas, truck traffic routes and limited rail operations that connect with the existing Port road and rail systems (Photograph 7).

The Nevada Cement facility, including Berths 2 and 3/4, is largely devoid of vegetation with the exception of some small potted ornamental landscaping. The shoreline adjacent to the rail trestle contains a very small area of riparian vegetation, including several small (less than 6 inches in diameter at breast height) walnut trees. Small riparian trees and ruderal vegetation are also present on the shoreline adjacent to Bunker 1 on the eastern edge of the proposed lease area, also outside the immediate improvement area.

West of the Nevada Cement facility is the Wilmar Oils and Fats terminal, leased from the Port, and east of the facility is the Penny Newman Grain terminal. Both properties are nearly devoid of vegetation. The developed areas located to south include a mix of industrial and low-density residential properties that contain lawns, trees, shrubs, and ruderal vegetation. The project site is located adjacent to the Stockton DWSC and just west of the San Joaquin River turning basin (an area where the river widens allowing vessels to reverse orientation prior to departure).

3.3.1.2 Wetlands and Jurisdictional Waters

No wetlands are present within the proposed project footprint. As noted, Berth 2 and the immediately adjacent wooden rail trestle are both located in the San Joaquin River. Because of the turning basin, the San Joaquin River measures approximately 1,300 feet wide at the Berth 2 area, 425 feet at the Berth 3/4 area, and operational depths are maintained to -35 feet mean lower low water (MLLW) through routine maintenance dredging undertaken by USACE. Adjacent dock areas are maintained by the Port. The San Joaquin River channel substrate in the project area contains mud and silt, and water quality is characterized by low dissolved oxygen levels and high water temperatures during the late summer and early fall, due to the terminus of the channel approximately 1.5 miles to the east.

3.3.1.3 Special-Status Wildlife Species

The CNDDB search identified 28 special-status (proposed threatened, threatened, candidate endangered, or endangered under the federal Endangered Species Act [ESA] or California Endangered Species Act [CESA], state species of special concern, or CDFW fully protected species) wildlife species within the study area, as identified through a search of the proposed project quadrangle and eight surrounding quadrangles (Appendix F). Potential species occurrence was determined based on habitat requirements and on-site conditions.

The project site's developed condition and location within a highly industrialized area substantially limits the potential for terrestrial special-status species to occur. The project site may have a very low potential to support nesting habitat for Migratory Bird Treaty Act (MBTA)-protected bird species.

Fish species potentially present in the project area (specifically within the San Joaquin River adjacent to Berths 2 and 3/4) were identified based on the CNDDB search and critical habitat and Essential Fish Habitat (EFH) designations (50 CFR 226; NOAA 2009). San Joaquin River waters that would accommodate project vessels and proposed in-water improvements are within designated critical habitat for delta smelt (*Hypomesus transpacificus*), Central Valley steelhead (*Oncorhynchus mykiss irideus*), and green sturgeon (*Acipenser medirostris*). San Joaquin River waters in the project area are also considered EFH for Pacific Groundfish and Pacific salmon (NOAA 2025; NMFS 2025a). The endangered longfin smelt (*Spirinchus thaleichthys*) and Marine Mammal Protection Act

(MMPA)-protected harbor seals (*Phoca vitulina*) may also inhabit San Joaquin River waters. These potentially present species are described in the following subsections.

3.3.1.3.1 Swainson's Hawk

Although Swainson's hawk (*Buteo swainsoni*) is not listed under the ESA, it is listed as threatened under the CESA and protected under the MBTA and is a federal Species of Conservation Concern. Swainson's hawk is a long-distance migrant species. Central Valley populations winter primarily in Mexico and arrive at their Central Valley breeding grounds in mid-March to early April. Nests are generally found in scattered trees or along riparian systems adjacent to agricultural fields or pastures. Egg laying generally occurs in April, and young are present in May and June. Most young have fledged the nest by the end of July and are relatively independent of parental protection; however, fledged young remain with their parents until they depart in the fall for migration. Migration to wintering grounds generally occurs around September; however, some individuals or small groups may winter in California (Caltrans and Port 2013).

Swainson's hawks are regularly observed throughout the Port. Trees along the San Joaquin River shoreline located across the San Joaquin River and up and downstream of the proposed project and the rail trestle may provide nesting habitat to the Swainson's hawk.

3.3.1.3.2 White-Tailed Kite

The white-tailed kite (*Elanus leucurus*) is not listed as threatened or endangered under either the ESA or the CESA. However, the species is designated as a Fully Protected Bird Species under California Fish and Game Code Section 3511 and is therefore considered a special-status species for purposes of this analysis. White-tailed kites nest and forage in a variety of settings. They hunt over grassland, savanna, cultivated fields, marshes, and riparian woodland and are also commonly observed foraging along freeway medians and edges. Kites prey primarily on voles and other small rodents but also eat birds, snakes, lizards, frogs, and large insects. They build stick nests in the tops of trees, preferentially near an open foraging area, and typically forage within 0.5 mile of the nest during breeding season, which extends from February through October.

The nearest white-tailed kite occurrence was recorded approximately 3.4 miles southeast of the project area in April 2002 (CDFW CNDDB 2025). As with Swainson's hawk, trees across the San Joaquin River and along the shoreline up and downstream of the proposed project and the rail trestle may provide nesting habitat for white-tailed kites.

3.3.1.3.3 Green Sturgeon (Southern DPS)

Green sturgeon (*Acipenser medirostris*) is a special-status fish species. The southern distinct population segment (DPS), which includes populations associated with the Sacramento–San Joaquin watershed, is listed as threatened under the ESA. The species is not listed under the CESA, is not a

California Species of Special Concern, and is not designated as a Fully Protected Species by CDFW. The southern green sturgeon DPS includes fish that inhabit the San Francisco Bay and Delta and spawn in the Sacramento River basin. Subadults and adults of this species inhabit nearshore oceanic waters, bays, and estuaries while also migrating to and from freshwater habitats. Freshwater occurrence of this species occurs during the early life history stage (less than 4 years old), and later when adults return to freshwater to spawn (spawn age range of 10 to 15 years old). Spawning occurs in the spring and summer, as recorded in the upper Sacramento River and tributaries such as the Feather, Yuba, and American rivers. During the juvenile stage, green sturgeon can be distributed throughout the freshwater portions of their habitat the entire year. Juveniles of two apparent size groups (fork length range of 20 to 58 centimeters) have been collected in the Sacramento and San Joaquin rivers and Suisun Bay. However, there are substantial gaps regarding our knowledge of this species' biology, ecology, and habitat within the San Francisco Bay and Delta (USACE 2015).

Little is known about the diet of green sturgeon. Juvenile green sturgeon are presumed to be generalists and opportunists, likely feeding on seasonally abundant drifting and benthic invertebrates. As sturgeon grow, they begin to feed on oligochaetes, amphipods, smaller fish, and fish eggs. When juvenile green sturgeon enter the estuary, their diet shifts to larger benthic food items, though they remain generalists and opportunists, including Asian clams. Although Asian clams are a potential green sturgeon food source, the clams may be a significant source of selenium, which could adversely affect green sturgeon fertility. Subadult and adult green sturgeon are presumed to be secondary consumers and opportunistic predators of macrocrustaceans and bivalves in bay, subtidal, and intertidal habitats (Israel and Klimley 2008). More general feeding data for adult green sturgeon shows that they are eating benthic invertebrates, including shrimp, mollusks, amphipods, and small fish (Moyle et al. 1992).

Within the study area and during the approved in-water work window (July 1 through November 30), green sturgeon were not encountered during entrainment and community monitoring by USACE and the Port, although these surveys typically occurred in the latter portion of the approved window, when USACE operation and maintenance dredging was conducted. Similarly, none have been observed in or adjacent to the study area during Fall Midwater Trawl (FMWT) surveys, although FMWT methods are less likely to observe larger green sturgeon individuals. Green sturgeon have been encountered elsewhere in the Stockton DWSC (outside of the study area) during entrainment and community monitoring by USACE. Between 2005 and 2024, a total of four green sturgeon individuals were encountered during community monitoring (none were entrained) at Decker and Bradford islands, more than 25 miles northwest (downstream) of the Port. Prior to 2005, no green sturgeon had ever been documented in the San Joaquin River or its tributaries (USACE 2015; CDFW 2025a) although there is not sufficient information to establish whether the San Joaquin River system has historically supported a viable green sturgeon population (NMFS 2005a).

There is a small potential for southern DPS green sturgeon to be present in the study area during the in-water construction window (USACE 2015; CDFW 2025a) based on past historical conditions, monitoring data, and species characteristics. San Joaquin River waters at the Port may also be frequented during the upstream migration of spawning adults and downstream migration, resting, and foraging of juveniles (Caltrans and Port 2013). The San Joaquin River in this area does not provide suitable spawning habitat for green sturgeon.

Based on past historical conditions, monitoring data, and this species' characteristics, there exists a very small potential for green sturgeon to be present in the study area.

3.3.1.3.4 Delta Smelt

Delta smelt (*Hypomesus transpacificus*) is listed as threatened under the ESA and endangered under the CESA. The species is not designated as a California Species of Special Concern or a CDFW Fully Protected Species. Due to its federally and state-listed status, delta smelt is considered a special-status species for purposes of this analysis. The delta smelt is a euryhaline fish with a habitat range extending from the lower reaches of the Sacramento and San Joaquin rivers, through the Delta, and into Suisun Bay. This Delta-endemic species is currently found in very low abundance within the Sacramento and Stockton DWSCs. Delta smelt was federally listed as a threatened species under the ESA on March 5, 1993 (58 *Federal Register* [Fed. Reg.] 12854). The state status of delta smelt was first listed as threatened under the California ESA in 1993 and was elevated to endangered on March 4, 2009. On March 24, 2009, the USFWS initiated a 5-year status review of delta smelt. As of April 7, 2010, and as reconfirmed on December 5, 2014 (79 Fed. Reg. 72450), reclassification status of delta smelt to endangered was found warranted but precluded by other higher priority ESA listing actions (75 Fed. Reg. 17667; April 7, 2010).

Presence and abundance of delta smelt is closely associated with salinities between 0 and 7 practical salinity units (PSU). The upper salinity tolerance for this species is 19 PSU, with a strong preference for habitat near or upstream of the 2 PSU isohaline. Delta smelt are not present in waters over 25°C and are rarely found in water temperatures above 22°C. Spawning habitat is present in dead-end sloughs, near inshore areas of the Delta, and willow freshwater channels of the Delta and Suisun Bay, all areas away from the Port docks. During the fall prior to spawning, delta smelt congregate in upper Suisun Bay and the lower reaches of the Delta. The spawning period is estimated to be from February to June. Delta smelt may prefer spawning over vegetation, if present, but often deposit their eggs over submerged tree branches and stems or in open water over sandy and rocky substrate, and they may even use the shallower areas of Delta levees. Eggs are demersal and adhesive. Newly hatched larvae float near the surface of the water, with movements following tides and discharge. Sommer and Mejia (2013) state that delta smelt are more commonly associated with lower salinities and higher turbidities, moderate temperatures, and some tidal influence (USACE 2015).

Larger juveniles and adults are most abundant during the spring and summer in Suisun Bay and the Delta, as evidenced from trawl and trap net catch data. Seasonal migrations occur within a short section of the upper estuary. Juvenile smelt move downstream to San Pablo Bay and Carquinez Strait before turning back to Suisun Bay or upstream sloughs for spawning. During average and high outflow years, delta smelt congregate from upper Suisun Bay to the Sacramento River near Decker Island. During low outflow and drought years, their pre-spawning congregations are centered in the channel of the Sacramento River and are rarely found further downstream in Suisun Bay (USACE 2015).

The primary food for all life stages of the delta smelt are the nauplius, copepodite, copepodid, and adult stages of copepod. Adult smelt will also prey on opossum shrimp (*Neomysis mercedis*) as a secondary food source, and on cladocerans (*Daphnia* spp., *Bosmina* spp.) as a seasonal food source (USFWS 1993). The pelagic larvae of delta smelt feed on phytoplankton until they are 4 days old, then begin to feed on rotifers on the sixth day and *Artemis nauplii* on the 14th day (USFWS 1994). Within the mixing zone, the pelagic larvae are zooplanktivores and feed on rotifers, copepods, cladocerans, and amphipods (USFWS 1993). Juvenile delta smelt primarily eat planktonic crustaceans, small insect larvae, and mysid shrimp (Moyle 1976).

Within the study area and during the approved work window, no delta smelt have been encountered during the FMWT between 2014 and 2024, or during entrainment and community monitoring by USACE and the Port (CDFW 2025a). Delta smelt have, however, been encountered in greater abundances during surveys throughout the Sacramento and Stockton DWSCs (outside of the study area). Between 2005 and 2014, a total of 52 individuals were encountered during USACE entrainment and community monitoring in the vicinity of the Antioch Bridge, Decker Island, and the Sacramento DWSC, over 25 miles northwest of the Port.

Delta smelt have been encountered at FMWT stations farther from the study area, with the nearest delta smelt encountered at sampling station 802 at the confluence of the Sacramento and San Joaquin rivers, approximately 33 miles northwest of the study area.

Delta smelt typically spawn in Suisun Bay during late June and early July after moving downstream from the upper estuary (Solano County 2012). After hatching, larvae are dispersed throughout low salinity habitats, generally moving into Suisun Bay, Montezuma Slough, and upriver to the lower Sacramento River below Rio Vista as they mature. Water clarity and water temperature conditions are unfavorable for delta smelt in the central and southern Delta during the summer (Nobriga et al. 2008; Sommer et al. 2011). Based on past monitoring data and this species' characteristics, delta smelt are unlikely to be present in the study area during the currently authorized work window (USACE 2015; CDFW 2025a).

3.3.1.3.5 Steelhead (Central Valley Distinct Population Segment)

Central Valley steelhead (*Oncorhynchus mykiss*; Central Valley DPS) is listed as threatened under the ESA. The species is not listed under the CESA, is not a California Species of Special Concern, and is not designated as a CDFW Fully Protected Species. Due to its federal listing status, Central Valley steelhead is considered a special-status species for purposes of this analysis. The Central Valley steelhead (*O. mykiss*) DPS includes all populations in the Sacramento and San Joaquin rivers and their tributaries. The current distribution ranges from Keswick Dam in the Upper Sacramento River to the Merced River in the San Joaquin River Basin, with distribution primarily limited by impassable dams. Anadromous adults of the Central Valley steelhead DPS make their upstream spawning migrations beginning in July (peaking in September and October) after residing in the ocean for 2 to 3 years. Spawning occurs from December through April. Spawning, incubation, and most rearing occurs away from the study area. Juveniles reside in freshwater from 1 to 3 years, primarily near the surface and in the water column above the benthos when over deeper waters. Juveniles feed on diverse aquatic and terrestrial insects and other small invertebrates. Most juvenile Central Valley steelhead are found migrating through the San Francisco Bay and Delta during the spring, although outmigration occurs from December through August (USACE 2015). Although juvenile and adult steelhead prey on euphausiid crustaceans, squid, herring, and other small fishes available in the marine environment, their riverine diet is primarily aquatic and terrestrial insects and their larvae, mollusks, amphipod crustaceans, fish eggs, and minnows (NMFS 2005b).

No steelhead have been encountered during entrainment and community monitoring by USACE and the Port, although these surveys were typically completed during the latter portion of the in-water work window. No steelhead have been encountered during FMWT surveys of the area (both during and outside the proposed work window), although these surveys also typically occur later in the work window (from September through December).

Based on past monitoring data, there is a very small potential for this species to be present in the study area during the approved in-water construction window (USACE 2015; CDFW 2025a).

3.3.1.3.6 Longfin Smelt

Longfin smelt (*Spirinchus thaleichthys*) is listed as threatened under the CESA. The San Francisco Bay–Delta DPS is also listed as endangered under the ESA. The species is not designated as a California Species of Special Concern or a CDFW Fully Protected Species. Accordingly, longfin smelt is considered a special-status species for purposes of this analysis. Longfin smelt (*Spirinchus thaleichthys*) is federally listed as an endangered species (89 Fed. Reg. 61029; July 30, 2024). Longfin smelt, a small sized euryhaline and anadromous fish, was historically among the most abundant fish in the San Francisco estuary and the Delta. Significant declines in longfin smelt abundance have occurred throughout its range during the past quarter century. Longfin smelt are distinguished by their long pectoral fins, which reach or nearly reach the base of their pelvic fins. They grow a

maximum size of about 150 millimeters (total length) and reach maturity near the end of their second year. As they mature in the fall, adults found throughout San Francisco Bay migrate to brackish or freshwater in Suisun Bay, Montezuma Slough, and the lower reaches of the Sacramento and San Joaquin rivers. Spawning adults congregate at the upper end of Suisun Bay and in the lower and middle Delta, especially in the Sacramento River channel and adjacent sloughs (USACE 2015). Spawning occurs primarily from January through March, after which most adults die (CDFG 2009a). In April and May, juveniles are believed to migrate downstream to San Pablo Bay. Juvenile longfin smelt are collected throughout the bay during the late spring, summer, and fall, and occasionally venture offshore as far as the Gulf of the Farallones. Juveniles typically inhabit the middle and lower portions of the water column (USACE 2015). Longfin smelt first begin feeding on copepods and cladocerans. With subsequent growth, their diet expands to include mysids and amphipods, among a variety of lesser food items (CDFG 2009b).

Within the study area and during the proposed in-water work window of July through November, no longfin smelt have been near the study area during the FMWT between 2014 and 2024, or during entrainment and community monitoring by USACE and the Port. Each of these surveys, however, has occurred only or typically during the latter portion of the in-water work window. Longfin smelt have, however, been encountered in greater abundances during surveys throughout the Sacramento and Stockton DWSCs (outside of the study area). Between 2005 and 2014, a total of 919 individuals were encountered during USACE entrainment and community monitoring in the vicinity of the Antioch Bridge, Decker Island, and the Sacramento DWSC, over 25 miles northwest of the Port. Longfin smelt have been encountered at FMWT stations farther from the study area, with the nearest longfin smelt encountered at sampling station 807 near Big Break, approximately 26 miles northwest of the study area.

Based on past monitoring data and this species' characteristics, there exists a very small potential for this species to be present in the study area during the authorized work window (USACE 2015; CDFW 2025a).

3.3.1.3.7 Golden Mussels

Golden mussels (*Limnoperna fortunei*) are an invasive non-native freshwater bivalve that were first detected in the Port of Stockton in 2024 (CDFW 2024). Following the initial detection, additional observations of golden mussels were made at multiple locations throughout the Sacramento–San Joaquin Delta (CDFW 2025c).

The species poses a substantial threat to aquatic ecosystems due to its rapid reproduction, ability to colonize submerged surfaces at high densities, and capacity to alter aquatic food webs through intensive filter feeding. The species may adversely affect native aquatic organisms through competition for food and habitat, modification of water quality characteristics, and alteration of habitat conditions. Golden mussels also have the potential to colonize water conveyance facilities,

water intake structures, and other submerged infrastructure throughout the Delta. The species was likely introduced through international maritime shipping via hull fouling or ballast water discharge (CDFW 2025c). The detection of golden mussels within the Delta and Port area is a regional condition and is not caused by the proposed project.

3.3.1.3.8 Marine Mammals

Marine mammals are generally not expected to occur within most inland reaches of the San Joaquin River. However, harbor seals (*Phoca vitulina*) are known to occur in the San Joaquin River adjacent to the project site. Their presence is largely transitory, because there are no rookeries or suitable haul-out sites regularly utilized by harbor seals within the Port. Habitat for harbor seals within the project area of effect is generally low quality relative to the greater Bay Delta, given the high level of vessel traffic at the Port and disturbed condition of the San Joaquin River. As a result, the project area does not provide important habitat for marine mammals

3.3.1.3.9 Special-Status Plant Species

There are 18 plant species considered rare, threatened, or endangered by the California Native Plant Society (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 (Appendix D; CDFW CNDDB 2025). Of these 18 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 in the general vicinity have the potential to occur within the project site.

3.3.1.3.10 Migratory Bird Treaty Act-Protected Birds and Raptors

Several species of birds protected by the MBTA may occur in the proposed project vicinity. Although the shoreline in the project area serves industrial functions, MBTA-protected birds could nest in disturbed but barren areas within the project site such as on the armored shoreline adjacent to the rail trestle. MBTA-protected birds could also roost or nest in mature trees located across the San Joaquin River or downstream from the project site. Several MBTA-protected birds have been observed at the Port, including the following (Anchor QEA 2018):

- Barn swallow (*Hirundo rustica*)
- Bushtit (*Psaltriparus minimus*)
- Belted kingfisher (*Megaceryle alcyon*)
- House finch (*Haemorhous mexicanus*)
- Cliff swallow (*Petrochelidon pyrrhonota*)
- White-tailed kite (*Elanus leucurus*)
- Swainson's hawk (*Buteo swainsoni*)

- Common raven (*Corvus corax*)

3.3.2 Applicable Regulations

3.3.2.1 Federal

3.3.2.1.1 Federal Endangered Species Act

Under the ESA, the Secretary of the Interior and the Secretary of Commerce have the joint authority to list a species as threatened or endangered (16 *United States Code* [USC] 1533[c]). Pursuant to the requirements of the ESA, an agency reviewing a proposed project within its jurisdiction must determine whether any federally listed threatened or endangered species may be present in the study area and determine whether the proposed project may affect or "take" such species. "Take" is defined by the ESA (16 USC 1532[19]) to mean, "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." Section 7 of the ESA requires USACE to consult with USFWS or NMFS to determine whether the proposed project is likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of critical habitat proposed to be designated for such species (16 USC 1536[a][3]).

3.3.2.1.2 Marine Mammal Protection Act

The MMPA was enacted in October 1972 to establish a national policy to prevent marine mammal species and population stocks from diminishing, as a result of human activities, beyond the point at which they cease to be significant functioning elements of the ecosystems of which they are a part. Under the MMPA, Congress directed that the primary objective of marine mammal management should be to maintain the health and stability of the marine ecosystem and, when consistent with that primary objective, to obtain and maintain optimum sustainable populations of marine mammals. The MMPA prohibits the taking and importing of marine mammals, details exemptions to the prohibition, and requires the maintenance of sustainable populations.

3.3.2.1.3 Migratory Bird Treaty Act

The MBTA of 1918 (16 USC 703–712) is the primary legislation in the United States to conserve migratory birds. It implements the United States' commitment to four bilateral treaties, or conventions, for the protection of a shared migratory bird resource. The MBTA prohibits the taking, killing, trading, or possessing of migratory birds. This includes disturbance that causes nest abandonment or loss of reproductive effort (e.g., killing or abandonment of eggs or young).

3.3.2.2 State

3.3.2.2.1 California Endangered Species Act

Under the CESA, CDFW is responsible for maintaining a list of threatened, endangered, and candidate species (California Fish and Game Code [FGC] 2070). CDFW also designates "fully

protected" or "protected" species as those that may not be taken or possessed. Species designated as fully protected or protected may or may not be listed as endangered or threatened. CDFW also tracks species of special concern, which are animal species whose populations have diminished and may be considered for listing if declines continue. Pursuant to the requirements of the CESA, an agency reviewing a proposed project within its jurisdiction must determine whether any state-listed endangered or threatened species may be present in the study area and determine whether the proposed project would have a potentially significant impact on such species. "Take" of a species, under the CESA, means to "hunt, pursue, catch, capture, kill, or attempt to hunt, pursue, catch, capture, or kill" (FGC 86). The CESA definition of "take" does not include "harm" or "harass," as is included in ESA. As a result, the threshold for a take under the CESA may be higher than under ESA because habitat modification is not necessarily considered take under the CESA. CDFW may issue incidental take permits when adequate minimization measures are met and issuance of the permit would not jeopardize the continued existence of a state-listed species. Should the project applicant receive authorization to take federally listed species under ESA, take authorization may also be sought as a "consistency determination" from CDFW under FGC 2080.1.

3.3.2.2.2 California Native Plant Protection Act

The CNPS (FGC 1900–1913), Natural Communities Conservation Planning Act, and CESA provide guidance on the preservation of plant resources. Vascular plants listed as rare or endangered by the CNPS, but which may have no designated status or protection under federal or state endangered species legislation, are defined as follows:

- **Rank 1A:** Plants presumed to be extirpated in California and either rare or extinct elsewhere
- **Rank 1B:** Plants rare, threatened, or endangered in California and elsewhere
- **Rank 2A:** Plants presumed to be extirpated in California, but more common elsewhere
- **Rank 2B:** Plants rare, threatened, or endangered in California, but more common elsewhere
- **Rank 3:** Plants about which more information is needed (a review list)
- **Rank 4:** Plants of limited distribution (a watch list)

In general, plants listed as with California Rare Plant Rank 1A, 1B, 2A, or 2B also meet the definition of FGC 1901, Chapter 10 of the Native Plant Protection Act, and FGC 2062 and 2067. The CNDDB identifies 19 special-status plant species (CNPS Rank 1 or 2 species) with historic ranges in the vicinity of the study area. However, suitable habitat or microhabitat conditions specific to these species do not exist at the project site.

3.3.2.2.3 California Fish and Game Code 3503, 3511, 3513, 4700, 5050, and 5515

Provisions of the MBTA are adopted through the FGC. Under FGC 3503, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or related regulations. FGC 3513 prohibits take or possession of any designated migratory

non-game bird or any part of such migratory non-game bird. The state code offers no mechanism for obtaining an incidental take permit for the loss of non-game migratory birds.

The FGC strictly prohibits the incidental or deliberate take of fully protected species. CDFW cannot issue a take permit for fully protected species, except under narrow conditions for scientific research or the protection of livestock; therefore, avoidance measures may be required to avoid a take (FGC 3511 for birds, 4700 for mammals, 5050 for reptiles and amphibians, and 5515 for fish).

3.3.2.3 Regional and Local

3.3.2.3.1 San Joaquin County Multi-Species Habitat Conservation and Open Space Plan

The San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP), in accordance with ESA Section 10(a)(1)(B) and CESA Section 2081(b) Incidental Take Permits, provides compensation for the conversion of open space to non-open space uses which affect the plant, fish, and wildlife species covered by the plan (SJCOG 2000). The SJMSCP covers 97 species, including federal and state-listed species, as well as other special-status species commonly analyzed under CEQA (SJCOG 2000).

For projects with the potential to adversely affect special-status species or habitats, project proponents may opt into the SJMSCP to obtain take coverage for species covered by the plan. Opting into the SJMSCP typically entails adhering to avoidance and minimization measures during project construction and mitigating for potential species take or loss of habitat (through credit purchase or other means).

3.3.2.3.2 City of Stockton Municipal Code

Title 16, Division 5, Chapter 16.130 of the City Municipal Code provides protection for heritage oaks in the City. Heritage oak trees are defined as any *Quercus lobata* (commonly known as valley oak), *Quercus agrifolia* (coast live oak), or *Quercus wislizeni* (interior live oak) tree that is located on public or private property within the limits of the City and has a trunk diameter of 16 inches or more, measured at 24 inches above actual grade. Removal of any heritage oak requires a permit from the City Community Development Department.

3.3.2.3.3 Envision Stockton 2040 General Plan

The City's 2040 General Plan (City 2018) sets out policies for land use, transportation, safety, and community health for the City. The land use chapter of the 2040 General Plan addresses the

protection of natural and biological resources. Discussions under the 2040 General Plan land use chapter which may be applicable to the proposed project are as follows:

- Protect natural resource areas, fish and wildlife habitat, scenic areas, open space areas, agricultural lands, parks, and other cultural/historic resources from encroachment or destruction by incompatible development (Policy LU-5.2).
- Continue to coordinate with SJCOG and comply with the terms of the Multi-Species Habitat Conservation and Open Space Plan to protect critical habitat areas that support endangered, threatened, and special-status species (Action LU-5.2A).
- For projects on or within 100 feet of sites that have the potential to contain special-status species or critical or sensitive habitats, including wetlands, require preparation of a baseline assessment by a qualified biologist following appropriate protocols, such as wetland delineation protocol defined by the US Army Corps of Engineers. If such sensitive species or habitats are found to be present, development shall avoid impacting the resource, and if avoidance is not feasible, impacts shall be minimized through project design or compensation identified in consultation with a qualified biologist (Action LU-5.2B).
- Require new development to implement best practices to protect biological resources, including incidental take minimization measures (ITMMs) and other federal and State requirements and recommendations that are consistent with the SJMSCP (Action LU-5.2C).

3.3.3 Environmental Impacts and Mitigation Measures

3.3.3.1 Baseline

At the time of publication of the NOP/IS for the proposed project, Nevada Cement operated a bulk cementitious material receiving and distribution terminal. The structures and features within the project site are described in detail in Section 2. As described, the upland areas of the site are entirely devoid of vegetation with the exception of some small potted ornamental landscaping. The project site also includes the San Joaquin River and shoreline adjacent to Berths 2 and 3/4, and the existing wooden rail trestle.

3.3.3.2 Thresholds

For purposes of this DEIR, the following thresholds, based on Appendix G of the CEQA Guidelines (Environmental Checklist), were used to determine whether the proposed project would result in impacts on biological resources. The proposed project would have an impact on biological resources if the following apply:

- **BIO-1:** The project would 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 CDFW or USFWS.

- **BIO-2:** The project would have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFW or USFWS.
- **BIO-3:** The project would have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, and coastal wetlands) through direct removal, filling, hydrological interruption, or other means.
- **BIO-4:** The project would 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 would impede the use of native wildlife nursery sites.
- **BIO-5:** The project would conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- **BIO-6:** The project would conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

3.3.3.3 Methodology for Determining Impacts

Potential impacts on biological resources were qualitatively evaluated based on the habitat preferences of species known or suspected to occur in the project area, as well as the quantity and quality of existing habitat. Potential impacts were analyzed using recent USFWS and CDFW special-status species lists, local observations, and professional judgment of qualified biologists that are familiar with the project area in evaluating how the proposed project could interact with biological resources. This analysis also references the Biological Assessment prepared for in-water components of the proposed project (Appendix F), which includes a bioacoustics evaluation of potential impacts from pile driving and a Protected Species Monitoring Plan (PSMP). Bioacoustics modeling was used to evaluate potential underwater noise impacts consistent with NMFS guidance,

including consideration of sound source levels, transmission loss, and species-specific thresholds for behavioral disturbance and injury.

The significance criteria used to evaluate impacts on biological resources include potential effects on special-status species and sensitive habitats, as well as consistency with applicable regulations and policies protecting biological resources.

3.3.3.4 Impact Analysis

3.3.3.4.1 BIO-1: Would the project 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 Wildlife or U.S. Fish and Wildlife Service?

As described in Section 3.3.1, the upland portion of the project site and surrounding area is devoid of unique habitats or habitat features suitable for terrestrial special-status species. The San Joaquin River shoreline does include some mature trees across the channel and downstream from the project site, which may provide suitable nesting habitat for Swainson's hawk, white-tailed kites, or MBTA-protected bird species. Ground-nesting birds protected by the MBTA may also be present within or near the immediate project footprint. The proposed project would not remove or directly disturb any mature trees; however, construction noise could temporarily adversely affect nesting birds to the extent of the in-air impacts off site, if present. Existing dock and upland operations generate comparable terrestrial noise levels, and proposed construction activities would be similar in character and intensity to ongoing operational conditions.

Pile driving may temporarily disturb benthic sediments and could contribute minor increases of turbidity and suspended sediment in the immediate vicinity of the project area during construction. Elevated suspended solids and turbidity may affect aquatic organisms by impairing respiration, reducing visibility, and altering behavior. Mobile organisms can generally avoid unsuitable conditions.

Pile driving would be the most significant contributor to turbidity and suspended sediments during construction. However, increases in turbidity and suspended sediment levels related to the proposed construction would be significantly less than similar effects from maintenance dredging that regularly occurs throughout the Port. The USACE Waterways Experiment Station Technical Report, *Effects of Dredging and Disposal on Aquatic Organisms*, states that "most organisms tested are very resistant to the effects of sediment suspensions in the water, and aside from natural systems requiring clear water such as coral reefs and some aquatic plant beds, dredging induced turbidity is not a major ecological concern" (Hirsch et al. 1978). In addition, recent studies by the San Francisco Estuary Institute determined the short-term effects of dredging on sensitive fish species are typically minor, and activities such as pile driving installation would be less impactful.

Following construction, sediments would disperse due to local tidal forces and currents and would be restored to ambient levels within hours of disturbance. Any turbidity plumes would disperse within hours, and the particulate concentrations would be diluted to levels that would pose no major threat to water quality or aquatic wildlife.

Benthic habitat can provide important foraging areas for special-status species, especially for steelhead, green sturgeon, and longfin smelt, which forage in the benthos. Because delta smelt feed in the water column, benthic habitat is less important for this species. Oligochaetes and chironomids, which were formerly the dominant steelhead, green sturgeon, and longfin smelt food items produced in the Delta silty and sandy substrates (NMFS 2017), account for less than 0.01% of invertebrates documented during 2014 entrainment monitoring at the Port and Rough and Ready Island (USACE 2015). The loss of benthic invertebrates during pile-driving activities may decrease the forage value of benthic habitat at the installation location. However, recent examination of benthic invertebrate communities shows strong dominance of Asian clams (USACE 2015), which are a less favorable prey species. Asian clams are partially responsible for significant declines in phytoplankton within the Delta, which adversely affects the abundance of prey species consumed by green sturgeon, salmonids, and smelt (USFWS 2011; Clarke 2015; Martin 2006). The golden mussel was also discovered in 2024 in the Port by California Department of Water Resources staff (CDFW 2024). The presence of invasive species such as Asian clams and golden mussels reflects the highly altered ecological conditions of the project area.

Following sediment-disturbing activities such as pile driving, disturbed areas are usually recolonized quickly by benthic organisms (Newell et al. 1998). Studies have indicated that even relatively large areas disturbed by dredging activities, an activity that disturbs the benthic community more than pile driving, are usually recolonized by benthic invertebrates within 1 month to 1 year, with original levels of biomass and abundance developing within a few months to between 1 and 3 years (Newell et al. 1998). Disturbed areas are recolonized, beginning with mobile and opportunistic species (Oliver et al. 1977; Lenihan and Oliver 1995).

Additionally, the benthic environment in the study area has been severely impacted by historic Port and military operations, USACE maintenance dredging of the Stockton DWSC, and urban development throughout the city. It is therefore unlikely to offer high-quality foraging opportunities to special-status species.

Pile driving has the potential to release sediment-associated metals and other pollutants by dispersion within the resulting sediment plume. Water quality monitoring and elutriate toxicity testing results from past Port maintenance dredging sediment characterization efforts have not indicated toxicity concerns (ERS 2012, 2013) for sediments within the project area. Impacts to fish from uptake of pollutants in disturbed sediment is therefore not anticipated.

Construction has the potential to result in accidental spills, and various contaminants, such as fuel oils, grease, and other petroleum products used in construction activities, could be introduced into the system either directly or through surface runoff. Contaminants may be toxic to fish or cause altered oxygen diffusion rates and acute and chronic toxicity to aquatic organisms, thereby reducing growth and survival. Because the proposed project would include more than 1 acre of ground disturbance, a NPDES Construction Stormwater General Permit addressing these types of impacts would be required.

Underwater noise from construction, particularly from pile installation over approximately 47 days, has the potential to adversely affect fish. This may include mortality, injury, or behavioral impacts if fish are present in proximity to the pile driving source. Comprehensive bioacoustics modeling was performed to identify proposed project impact radiuses (for injury and behavior effects) from impact pile driving and to assess potential impacts to special-status fish and marine mammal species (Appendix F). Per the bioacoustics modeling, the calculated area of physical injury associated with increased sound pressure levels during pile driving is relatively small in comparison to the size of the San Joaquin River but does extend significantly beyond the project footprint. Project construction, primarily pile driving, may impede localized movement or migration of special-status fish (if present).

As described in Section 3.3.1, there is a low likelihood for green sturgeon, delta smelt, steelhead, or longfin smelt to be present in the action area during the proposed in-water work window. Activities within the channel may impede localized movement of these species within the project area. Although underwater noise effects (which could impede or limit fish movement) would extend beyond the immediate pile footprint, noise levels from pile driving would be temporary. The proposed project is therefore unlikely to result in substantial adverse effects to special-status fish movement or migration. Additional detail pertaining to seasonal anadromous fish migration is provided for each fish species in their respective sections.

Construction would occur within the existing footprint of Berth 3/4. Pile installation would be conducted using a vibratory hammer or single impact hammer mounted to a crawler crane operating from the Berth 3/4 deck. If the existing dock cannot support the crane loading, a floating derrick barge crane would be used. Pile-driving activities would be temporary and limited to the construction period.

The proposed project would not result in any permanent change to existing overwater coverage. No new permanent overwater structures would be constructed beyond the current berth footprint; therefore, there would be no permanent change in overwater shading of the water column or benthic habitat. If a floating derrick barge is required, its temporary presence may cause short-term shading within the immediate work area. However, this effect would be limited to the duration of in-water construction and would not result in long-term changes to light penetration or aquatic

habitat conditions. Accordingly, the proposed project would not result in permanent impacts related to overwater coverage.

The proposed project would result in an increase in vessel calls. However, the proposed project would have a negligible incremental effect on aquatic habitat relative to existing vessel traffic from ships using the existing area and the turning basin. In addition, adverse environmental effects from propeller wash and vessel strikes are not among the primary existing threats identified for potentially present fish.

Golden mussels are present within the Port and the Delta and therefore constitute an existing condition in the project vicinity. Because vessels may transport aquatic organisms through ballast water or hull biofouling, the increase in vessel calls could incrementally increase the potential for the introduction or spread of golden mussels and other aquatic invasive species. Vessel operations associated with the proposed project would be required to comply with applicable federal and state regulations governing ballast water management and biofouling control. The Port is also actively monitoring golden mussels and coordinating with agencies and other stakeholders regarding detection, management, and response efforts. Accordingly, the incremental increase in vessel calls, in combination with compliance with existing regulatory requirements and the Port's ongoing monitoring and coordination efforts, would not substantially contribute to the introduction or spread of invasive aquatic species, and impacts would be less than significant.

Therefore, impacts from the proposed project would largely be temporary and limited to within the proposed annual in-water work window of July 1 through November 30. Potential long-term effects would be limited to minor, localized disturbance of benthic habitat associated with pile installation.

Impact Determination: Construction of the proposed project has the potential to adversely affect special-status species that may be present in the project area. This includes potential input of pollutants to the waterway that could affect water quality, and pile driving that could also affect water quality or result in injury or mortality of special-status fish. These effects would represent potentially significant impacts.

Mitigation Measures: The following mitigation measures would be implemented during construction to reduce potential impacts:

- **MM-BIO-1: Obtain Coverage under the SJMSCP or Conduct Nesting Bird Surveys.** To avoid impacts on potentially present special-status species, the proposed project will obtain coverage under the SJMSCP. Nevada Cement will submit an application for coverage to SJCOG at least 60 days prior to the start of construction. SJCOG will review the proposed project, prepare a staff report, and submit the report to the SJMSCP Habitat Technical Advisory Committee, which determines whether the proposed project will be covered under the SJMSCP. Assuming the proposed project is approved for coverage, a SJCOG biologist will

conduct a site visit to determine which ITMMs included in the SJMSCP are applicable to the proposed project. SJCOG will then execute a final summary of applicable ITMMs for the proposed project. ITMMs would include surveys, monitoring, and applying temporary construction buffers, if determined appropriate by SJCOG. Nevada Cement will implement all required ITMMs identified by the SJCOG. Ground disturbance will not occur until the ITMMs have been satisfied.

- If the proposed project is not able to obtain coverage under the SJMSCP, Nevada Cement will implement avoidance and minimization measures specific to nesting birds as detailed below.
- For nesting birds, alternatives to SJMSCP coverage will include surveys and avoidance measures consistent with CDFW's standard requirements. If equipment staging, site preparation, or other project-related construction work is scheduled to occur between February 1 and September 15, the nesting season of protected raptors and other avian species, a CDFW-approved biologist will conduct a pre-construction survey of the project area, including the footprint of the proposed project and all areas that may be temporarily or permanently affected by project construction, operation, or maintenance activities, including staging areas, access routes, and other ancillary facilities, as is typical for projects covered by the SJMSCP, for active nests within 7 days prior to commencing project construction. The minimum survey area will be 250 feet for passerines, 500 feet for small raptors, and 1,000 feet beyond the project area as defined above for larger raptors. Surveys will be conducted during periods of peak activity (early morning or dusk) and be of sufficient duration to observe movement patterns. If a lapse in project-related work of 15 days or longer occurs, another survey will be performed before construction is re-initiated. If any active bird nests are found, a buffer around the nest will be established by the biologist in coordination with CDFW. The buffer area will be fenced off from work activities and avoided until the young have fledged, as determined by the biologist. The biologist will monitor the active nest until the young have fledged for at least 2 hours per day when project activities are occurring to observe the behavior of the nesting birds. If the birds show signs of disruption to nesting activities (e.g., defensive flights/vocalizations directed toward project personnel, standing up from a brooding position, or flying away from the nest), the buffers will be expanded by the biologist until no further interruptions to nesting behavior are detectable.
- **MM-BIO-2: Obtain and Implement NPDES Construction Stormwater General Permit.** A NPDES Construction Stormwater General Permit will be obtained for the proposed project, which will require the development of a construction Stormwater Pollution Prevention Plan (SWPPP). The construction SWPPP will include BMPs, including or similar to use of barriers (e.g., netting or sandbags) to prevent pollutants from entering the water, equipment inspection for spills, and maintenance and implementation of material spill prevention and cleanup plans. The construction SWPPP would ensure that contaminants are not accidentally introduced into the waterway.

- **MM-BIO-3: Conduct In-water Construction During Established Window.** All in-water work will be conducted during the annual CDFW-, NMFS-, and USFWS-approved work window, which is expected to span from July 1 through November 30.
- **MM-BIO-4: Implement a Monitoring Plan During Pile Driving.** During construction, Nevada Cement will implement a PSMP to protect fish and marine mammal species that may be in the project area. As determined in consultation with NMFS or CDFW, biological monitors will be used. A pre-start visual scan of the in-water work area prior to initiating pile driving (impact or vibratory) to identify the presence of ESA-listed fish at the surface will be conducted by contractors. As stated in the PSMP, should a protected species, including an ESA-listed fish, be observed in the no-start/shutdown zone, construction should pause until the species has left the zone or has not been observed for 15 minutes. The plan includes soft-start techniques for impact pile driving, which is industry standard and will be required per regulatory permits. Soft-start techniques include bringing pile driving or other loud equipment online slowly, providing fish the opportunity to disperse from the project area. Noise impacts due to pile driving would be minimized through vibratory installation methods, soft start, and sequence pile installation. Workers at the project site would not harass any fish or waterfowl in the project area. The plan also includes in-air and in-water shutdown zones that will be monitored by protected species observers during all pile-driving activity (Appendix F).
- **MM-BIO-5: Compliance with Permitting Requirements for In-Water Work.** For in-water work, Nevada Cement will comply with any necessary permitting requirements once permits are issued from USACE, RWQCB, and CDFW to avoid water quality and other natural habitat impacts. Requirements will likely include implementing erosion controls, designating appropriate staging and fueling areas, and requiring equipment inspections and maintenance.
- **MM-BIO-6: Purchase of Fish Habitat Mitigation Credits for Potential Bioacoustics Impacts.** To compensate potential temporary bioacoustics impacts that could exceed conservative cumulative sound exposure level (cSEL) screening thresholds under modeling assumptions, 0.15 fish habitat acre-credit will be purchased from the Liberty Island Conservation Bank, North Delta Conservation Bank, or other fish habitat mitigation bank with available credits and appropriate service area. This mitigation is proposed as a precautionary conservation measure and does not reflect an expectation that take of ESA-listed species would occur.

Residual Impact: Mitigation measures MM-BIO-1, MM-BIO-3, MM-BIO-4, and MM-BIO-5 would reduce the potential exposure of special-status species to construction impacts. This includes reducing potential presence of special-status species by completing surveys (MM-BIO-1), establishing buffer zones (MM-BIO-1), complying with construction windows (MM-BIO-3), providing species with the opportunity to disperse (MM-BIO-4), and establishing shutdown zones for marine

mammals during pile-driving activity (MM-BIO-4). Mitigation measures MM-BIO-2 and MM-BIO-5 would reduce the potential for pollutant inputs to the waterbody which could adversely impact special-status aquatic species.

For construction during the established in-water construction window (MM-BIO-3), delta smelt and longfin smelt are not anticipated to be present in the project area (as detailed in Section 3.3.1), and would therefore not be affected by impact pile driving noise during this period. Salmonids are similarly unlikely to be present during the construction window. Although some steelhead may migrate early, their likelihood of occurring in the project area during the in-water construction window remains very low and would be confined to the latter portion of the construction window. There is a small potential for green sturgeon to be present in the project area during and outside the construction window, and there is very low risk for green sturgeon injury from pile driving. The relatively small area of physical injury identified in the bioacoustics modeling and the use of soft-start techniques during all pile driving (MM-BIO-4) would further reduce the potential for fish to be exposed to injurious sound levels.

Mitigation Measure MM-BIO-6 would provide compensatory mitigation for conservatively modeled bioacoustics impacts through the purchase of fish habitat credits, serving as a precautionary measure to offset potential residual effects.

With implementation of mitigation measures MM-BIO-1 through MM-BIO-6, impacts would be reduced to less than significant.

3.3.3.4.2 BIO-2: Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

There are no riparian habitats or other sensitive natural communities within the immediate project footprint. The shoreline adjacent to the existing wooden rail trestle has several small riparian trees (approximately 6 inches in diameter at breast height), which would not be affected by proposed project construction.

The proposed project would occur within areas designated as critical habitat for southern DPS green sturgeon, delta smelt, and Central Valley DPS steelhead; and within EFH for the Pacific Coast salmon and Pacific Coast Groundfish Fisheries Management Plans. Permanent habitat impacts would be limited to a negligible loss of low-quality benthic habitat and would not substantially affect foraging opportunities. As described above, temporary impacts would be minimal and include water quality impacts, underwater noise, impediment of localized movement, loss of benthic habitat, and increased vessel traffic.

Impact Determination: Based on the analysis presented above, the proposed project would result in no impact to riparian habitat; however, impacts to critical habitat and EFH could be potentially significant. This includes potential impacts from pile driving (noise impacts, turbidity increases, benthic habitat loss, localized movement impacts) and potential pollutant inputs from construction.

Mitigation Measures: The following mitigation measures would be implemented during construction to reduce potential impacts:

- **MM-BIO-2: Obtain and Implement NPDES Construction Stormwater General Permit** (see BIO-1 for more information).
- **MM-BIO-3: Conduct In-water Construction During Established Window** (see BIO-1 for more information).
- **MM-BIO-4: Implement a Monitoring Plan During Pile Driving** (see BIO-1 for more information).
- **MM-BIO-5: Compliance with Permitting Requirements for In-Water Work** (see BIO-1 for more information).

Residual Impact: Implementing MM-BIO-2 and MM-BIO-5 would reduce the potential for pollutant inputs to the San Joaquin River which could adversely affect critical habitat or EFH. Implementing MM-BIO-3 would ensure that construction impacts occur when species associated with certain critical habitats and EFH are least likely to be present, whereas MM-BIO-4 would allow any species present to move away from the impact area. With implementation of these mitigation measures, impacts would be reduced to less than significant.

3.3.3.4.3 BIO-3: Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?

There are no wetlands within the proposed project footprint. Proposed construction improvements would occur within waters of the United States and state but outside of any wetlands, and there would be no anticipated secondary impacts to any wetland habitat. Ships would berth at existing docks that currently receive vessels or other ship calls.

Impact Determination: Based on the analysis presented above, the proposed project would result in no impact on state or federally protected wetlands.

Mitigation Measures: None required.

Residual Impact: No impact.

3.3.3.4.4 BIO-4: Would the project 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?

Although the project area is along the Pacific Flyway, 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, the developed nature of the project area and small size of the riparian corridor along the San Joaquin River likely limit use of the project site as a migratory stopover.

The in-water impact areas are not within any nursery sites for special-status fish species, and the proposed project would not impede migration within the San Joaquin River or other waters. Although docked vessels would temporarily impede localized movement of fish within the immediate berthing area, and proposed project construction would impede movement within the southern portion of the San Joaquin River, fish movement throughout the remainder of the channel would remain unimpeded.

The increase in vessels calls to existing docks is not anticipated to degrade aquatic habitat values compared to existing conditions. Under existing conditions, Port docks accommodate a multitude of vessels throughout the year and numerous other vessels, tugs, and skiffs pass by Berths 2 and 3/4 en route to the turning basin or other marine terminals to the east.

Impact Determination: Based on the analysis presented above, the proposed project would result in no impact to native wildlife nursery sites. Proposed project construction may impede localized movement of resident or migratory fish, which would constitute a potentially significant impact.

Mitigation Measures: The following mitigation measures would be implemented during construction to reduce potential impacts:

- **MM-BIO-3: Conduct In-water Construction During Established Window** (see BIO-1 for more information).
- **MM-BIO-4: Implement a Monitoring Plan During Pile Driving** (see BIO-1 for more information).
- **MM-BIO-5: Compliance with Permitting Requirements for In-Water Work** (see BIO-1 for more information).

Residual Impact: Implementing MM-BIO-3 would ensure that construction occurs when special-status fish species are least likely to be present, thereby further reducing any impacts on localized movement. Implementing MM-BIO-4 would ensure that any fish present are able to move away from the area of impact in adjoining waters where movement would not be affected by

construction noise. MM-BIO-5 would provide additional protection for wildlife movement. With implementation of these mitigation measures, impacts would be reduced to less than significant.

3.3.3.4.5 BIO-5: Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The proposed project would not require removal of any oak or street trees and would not conflict with the City Heritage Tree Ordinance or applicable municipal code provisions pertaining to street trees. Conformance with the SJMSCP is addressed under BIO-1. There are no other local policies or ordinances for protecting biological resources that are applicable to the project site or proposed project.

Impact Determination: Based on the analysis presented above, the proposed project would result in no impact from conflicting with local policies or ordinances pertaining to biological resources.

Mitigation Measures: None required.

Residual Impact: No impact.

3.3.3.4.6 BIO-6: Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The SJMSCP is the only conservation plan in the project area. As discussed under BIO-1, mature trees near the project footprint, including riparian trees along the San Joaquin River, may provide suitable nesting habitat for Swainson's hawk, white-tailed kites, or MBTA-protected bird species. Nests of ground-nesting MBTA-protected bird species may also be present in the project area. Construction activities associated with the proposed project may directly disturb ground-nesting birds or indirectly disturb birds nesting in trees away from the project site (i.e., noise disturbance), if present.

Impact Determination: Because the proposed project has the potential to temporarily adversely affect special-status species, it could result in a conflict with biological resource goals and policies from the SJMSCP. This would constitute a potentially significant impact.

Mitigation Measures: The following mitigation measure would be implemented during construction to reduce potential impacts:

- **MM-BIO-1: Obtain Coverage under the SJMSCP or Conduct Nesting Bird Surveys** (see BIO-1 for more information).

Residual Impact: Implementing MM-BIO-1 includes compliance with SJMSCP requirements or implementation of equivalent avoidance measures. With implementation of this mitigation measure, impacts would be reduced to less than significant.

3.4 Cultural Resources

This section describes existing cultural resources conditions, applicable regulations, and potential impacts of the proposed project on cultural resources.

For the purposes of this analysis, the study area includes the project area (the Nevada Cement terminal, Berth 2, and Berth 3/4), in-water areas below the mean high water line where project-related activities may occur, and upland areas required to support in-water construction activities.

3.4.1 Environmental Setting

This section describes the existing cultural resources setting of the project area, including the regional environmental context and conditions relevant to the presence of historical and archaeological resources.

The proposed project is located within the Great Valley geomorphic province in the southern San Joaquin Valley, a trough between the Sierra Nevada and Coast Ranges. The area is underlain by late Pleistocene alluvial deposits of the Modesto Formation, derived from Sierra Nevada outwash and alluvial fan processes (Howard 1979; Delattre et al. 2023; Marchand and Allwardt 1981). Following glacial melting, rising sea levels inundated the Central Valley through the Carquinez Strait beginning around 10,000 years ago, leading to formation of the Sacramento–San Joaquin Delta (Pierce 1988; Whipple et al. 2012). By approximately 4,000 years ago, the Delta had developed into a system of natural levees, floodplains, and tidal marshes supported by peat-forming wetlands (Brown and Pasternack 2004; Pierce 1988; Whipple et al. 2012).

The study area is located along the fringe of the Delta adjacent to the San Joaquin River, where historic conditions included distributary channels and floodplain environments (Whipple et al. 2012). Surficial geology in the area of potential effect consists of dredge spoils with nearby Holocene floodplain and late Pleistocene alluvial deposits, and intact soils range from clay to gravelly loam derived from mixed alluvium (Delattre et al. 2023; Soil Survey Staff 2026).

Prior to development, the area supported a transition between freshwater emergent wetlands and oak woodland/savanna habitats (Whipple et al. 2012). Historical mapping indicates the site was part of the floodplain or stream terrace along Stockton Slough (GLO 1879). Construction of the deepwater shipping channel in the early 20th century substantially altered the landscape (Sprague 1953). The project area is now highly developed with limited remaining vegetation.

Although the project area has been extensively modified by grading and filling associated with Port development, geotechnical data indicates that approximately 5.5 to 10 feet of artificial fill overlies native alluvial deposits. These underlying native sediments may retain the potential to contain previously unidentified archaeological resources. As a result, although the overall archaeological sensitivity of the project area is considered low, the potential to encounter buried resources in native sediments remains.

3.4.1.1 Precontact Context

The Delta is considered to have been occupied since the late Pleistocene and early Holocene, at least 11,000 years ago. However, alluvial processes have likely buried or erased most early archaeological sites. Fluted and Western Stemmed Tradition projectile points have been documented along the shore of Tulare Lake dating to around 11,000 to 9,000 years ago (Garfinkel 2015). Multiple documented sites in the region date to about 9,000 years ago and are thought to have been mobile communities focused on hunting and fishing (Chartkoff and Chartkoff 1984; Milliken et al. 2007).

Warm and dry conditions in the mid-Holocene (about 7,000 to 3,000 years ago) resulted in rising sea levels flooding lowlands and burying late Pleistocene landforms (Garfinkel 2015; Norton 2009). The newly-formed Delta was rich in food resources such as fish, ducks, turtles, and mammals such as elk (Norton 2009). These climatic changes are associated with a subsistence focus shift towards plant gathering; millingstones are common during this period, though communities are still thought to have been fairly mobile (Fagan 2003; Garfinkel 2015). Later in this period, a trend towards sedentary communities and economic diversification emerges.

The late Holocene is characterized by a continued increase in economic diversity and sociopolitical complexity, with emphasis on long-distance trade (Chartkoff and Chartkoff 1984; Moratto 1984). The climate cooled and increased water into the valley and delta (Garfinkel 2015; Norton 2009). Sites dating to this time period are often found on buried surfaces that reflect the use of marshes, grasslands, and riverine forests (Garfinkel 2015). A village site (CA-SJO-3) south of the proposed project area and located on small rise above the San Joaquin River and surrounding marshlands revealed houses with wooden pole frames and tule mats (Norton 2009). Archaeological remains included ducks, grebes, geese, pond turtles, fish, deer, elk, and pronghorn as well as plant food remains such as wild grapes, blackberries, elderberries, acorns, red maid, clarkia seeds, and wild sunflower seeds (Norton 2009). Archaeological collections throughout the valley often include basketry and cordage, bone awls, stone plummets, bone tubes, stone mortars and pestles, shell beads and ornaments, charmstones, heavy-stemmed dart points (and later arrow points), and fish hooks, spears, and saws (Garfinkel 2015). Cultures from this era correspond with ethnographically described cultures.

3.4.1.2 Ethnographic Context

The proposed project area is in the traditional territory of the Yokuts, possibly the Yachicumne or Chulamni, and was also used or settled by Plains Miwok and Wintun peoples (Kroeber 1976; Schenck and Dawson 1926; Tule River Indian Tribe of California 2026). Yokuts communities were organized into a number of Tribes united by a common language (Golla 2007). They lived in villages along the Mormon Slough, the Stockton Department Water Channel, and Bear Creek and throughout the San Joaquin Valley relying on the region's rich fishing and hunting resources (Kroeber 1976; Visit Stockton 2025). The Yokuts' main food source was acorns along with wild plants, roots, berries, fish,

deer, rabbits, prairie dogs, and other small mammals and birds (Santa Rosa Rancheria 2025). They made clothing from bark and grass and created jewelry and headbands from seeds and feathers (Santa Rosa Rancheria 2025). Tule was used to create boats, baskets, nets, and cradles (Kroeber 1976).

Native American communities were severely impacted by European contact (Milliken 1995). Non-Native exploration and settlement into the area introduced several diseases and took an enormous toll on California Native American populations (Norton 2009). Native peoples were ravaged by disease with some local groups losing an estimated three-quarters of the population (Norton 2009). Yokuts and Miwok people have endured and are now members of several federally recognized Tribes.

3.4.1.3 Regional and Port History

The project area is located within the Port, one of only two inland ports in California and the earliest of its kind in the state. The area was historically occupied by Native American groups, including the Yokuts, prior to European contact in the late 1500s and subsequent Spanish and Mexican settlement (Norton 2009; Wood 1973). The city was established in 1849 and incorporated in 1850, with early growth driven by the gold rush and river-based commerce (Wood 1973).

Development of the Port began in the early 20th century, with authorization in 1925 and federal approval to dredge the San Joaquin River channel in 1927. Dredging occurred primarily between 1933 and 1940, deepening and straightening the channel and enabling navigation by larger vessels (Sprague 1953). The Port officially opened in 1933 and supported regional agricultural and industrial trade through development of wharves, warehouses, and rail infrastructure (Port 2001; Sprague 1953).

During World War II, the Port and surrounding areas were used as a major inland military logistics hub, including the Stockton Ordnance Depot and Naval Supply Annex Stockton. These facilities supported Pacific Theater operations and resulted in expansion of rail lines, storage warehouses, and support infrastructure (California Military Museum 2016; Kennedy et al. 1998; Port 2001).

Following World War II, the Port resumed commercial operations and expanded its East Complex facilities in the 1950s to accommodate increased cargo volumes, including new warehouses, grain facilities, and dock and rail improvements (Sprague 1953). By the 1960s, the Port had become a major inland shipping facility supporting domestic and international trade.

In the late 1970s, the Port implemented administrative and capital improvements to address changing transportation economics and improve competitiveness, including a transition toward bulk cargo-handling (Fresno Bee 1978; Modesto Bee 1979, 1981). This period included development of facilities such as the Nevada Cement Stockton Import Terminal and other bulk storage and handling infrastructure. Continued modernization and industrial development have supported ongoing cargo growth through the late 20th century and into the 21st century.

3.4.2 Applicable Regulations

3.4.2.1 Federal

3.4.2.1.1 Section 106 of the National Historic Preservation Act

Under Section 106 and its implementing regulations at 36 CFR 800, federal agencies are required to consider the effects of the permitted activity on historic properties. A historic property is "any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places" (NRHP; 36 CFR 800.16[l][1]). Traditional Cultural Properties may also be historic properties. Under the Section 106 process, the federal agencies must consult with interested and affected Native American Tribes and the State Historic Preservation Officer on potential impacts to cultural and historic resources.

To be eligible for inclusion in the NRHP, a historic property must have significance and retain integrity. Significant properties meet one or more of the following criteria:

- **Criteria A:** They have an association with events that have made a significant contribution to the broad patterns of our history.
- **Criteria B:** They have an association with the lives of significant persons in our past.
- **Criteria C:** They embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.
- **Criteria D:** They have yielded or may be likely to yield information important in history or prehistory.

"Integrity" is defined as a historic property's ability to convey its historic significance, based on seven defined aspects. These include a property's location, setting, design, materials, workmanship, feeling, and association.

Under California law, any property listed in the NRHP is automatically included in the California Register of Historical Resources (CRHR) and is considered a historical resource under CEQA. Properties that have been evaluated as NRHP eligible, but have not been formally listed in the NRHP, are not automatically included in the CRHR. However, an NRHP-eligible property is generally considered a historical resource under CEQA.

3.4.2.2 State

3.4.2.2.1 California Environmental Quality Act

CEQA and the CEQA Guidelines include procedures for identifying, analyzing, and disclosing potentially significant adverse impacts of a project to historical and unique archaeological resources,

including resources listed in or formally determined eligible for the NRHP, the CRHR, or local registers. CEQA requires the lead agency to consider the effects of a project on archaeological resources and determine whether any identified archaeological resource is a historical resource (i.e., if the archaeological resource meets the criteria for listing in the CRHR) (CEQA Guidelines Sections 15064.5[a][1],[3] and 15064.5[c][1–2]). An archaeological resource that qualifies as a historical resource under CEQA generally qualifies for listing under Criterion 4 of the CRHR (CEQA Guidelines Section 15064.5[c][3]; NRHP Criterion D). An archaeological resource may qualify for listing under Criterion 4 when it can be demonstrated that the resource has the potential to significantly contribute to questions of scientific or historical importance. Archaeological resources that are not historical resources according to the above definitions may be "unique archaeological resources," as defined in PRC 21083.2, which generally provides that "non-unique archaeological resources" do not receive any protection under CEQA. If an archaeological resource is neither a unique archaeological resource nor a historical resource, the effects of a project on those resources are not considered significant under CEQA.

3.4.2.2.2 California Executive Order W-26-92

California Executive Order (EO) W-26-92 affirms that all state agencies shall recognize, preserve, and maintain significant heritage resources of the state.

3.4.2.2.3 Assembly Bill 52

AB 52, enacted in 2016, establishes a formal role for California Native American Tribes in the CEQA process and promotes the involvement of California Native American Tribes in the decision-making process when it comes to identifying and developing mitigation for impacts to resources of importance to their culture. AB 52 requires consideration of Tribal cultural resources, which are defined as a property, landscape, or object which is of cultural value to a Tribe and is eligible for the CRHR or a local historic register (or is determined by the lead agency to be a Tribal cultural resource after considering the significance of the resource to a California Native American Tribe). Under the updated guidelines, Tribes requesting consultation under AB 52 must be notified of a project when it is initiated and can request consultation within 30 days, after which the lead agency must begin consultation within 30 days of the request.

3.4.2.2.4 Senate Bill 18

SB 18 requires cities and counties to consult with California Native American Tribes prior to adopting or amending a general plan or specific plan for the purpose of preserving or mitigating impacts to traditional Tribal cultural places. SB 18 consultation is separate from AB 52 consultation under CEQA, but the two processes may overlap where a project could affect Tribal cultural resources or culturally significant places.

3.4.2.3 Local

3.4.2.3.1 City of Stockton Municipal Code

The City designates Landmarks and Historic Sites under the City Municipal Code, Title 16, Division 7, Chapter 16.220. Landmarks are artifacts, natural features, or structures notable for one or more of the following: archaeological interest; architectural craftsmanship, style, or type; association with a historic event or person; association with the heritage of the city, state, or nation; visual characteristics; relationship to another landmark; or integrity as a natural environment. Historic sites are areas, neighborhoods, properties, or sites which meet one or more of the following: archaeological interest; association with the heritage of the city, state, or nation; visual characteristics; association with a particular way of life important to the city; or association with a historic event, significant person, or a person significant to a specific national origin. Historic sites cannot be relocated or demolished without a permit.

3.4.2.3.2 Envision Stockton 2040 General Plan

The City's 2040 General Plan (City 2018) sets out policies for land use, transportation, safety, and community health for the City. The land use chapter of the 2040 General Plan addresses the protection of natural resources, including cultural and historic resources. Discussions under the 2040 General Plan land use chapter which may be applicable to the proposed project are as follows:

- Protect, maintain, and restore natural and cultural resources (Goal LU-5).
- Protect natural resource areas, fish and wildlife habitat, scenic areas, open space areas, agricultural lands, parks, and other cultural/historic resources from encroachment or destruction by incompatible development (Policy LU-5.2).
- Require the following tasks by a qualified archaeologist or paleontologist prior to project approval:
  - Conduct a record search at the Central California Information Center located at California State University Stanislaus, the University of California Museum of Paleontology at Berkeley, and other appropriate historical or archaeological repositories.
  - Conduct field surveys where appropriate.
  - Prepare technical reports, where appropriate, meeting California Office of Historic Preservation or other appropriate standards.
  - Where development cannot avoid an archaeological or paleontological deposit, prepare a treatment plan in accordance with appropriate standards, such as the Secretary of the Interior's Standards for Treatment of Archaeological Sites (Action LU-5.2D).
- Continue to consult with Native American representatives, including through early coordination, to identify locations of importance to Native Americans, including archaeological sites and traditional cultural properties (Action LU-5.2E).

- If development could affect a Tribal cultural resource, require the developer to contact an appropriate Tribal representative to train construction workers on appropriate avoidance and minimization measures, requirements for confidentiality and culturally appropriate treatment, other applicable regulations, and consequences of violating State laws and regulations (Action LU-5.2F).
- Comply with appropriate State and federal standards to evaluate and mitigate impacts to cultural resources, including Tribal, historic, archaeological, and paleontological resources (Action LU-5.2G).

3.4.3 Environmental Impacts and Mitigation Measures

3.4.3.1 Baseline

At the time of the NOP/IS for the proposed project, Nevada Cement operated a bulk cementitious material receiving and distribution terminal at the project location. The facilities within the project area are described in detail in Section 2. As described, the terminal was fully paved and developed as an industrial complex.

3.4.3.2 Thresholds

For purposes of this DEIR, the following thresholds, which are based on Appendix G of the CEQA Guidelines (Environmental Checklist), were used to determine whether the proposed project would result in impacts on cultural resources. The proposed project would have an impact on cultural resources, including Tribal cultural resources, if the following apply:

- **CUL-1:** The project would cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5.
- **CUL-2:** The project would cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.
- **CUL-3:** The project would disturb any human remains, including those interred outside of formal cemeteries.

3.4.3.3 Methodology for Determining Impacts

Cultural resources are defined as buildings, sites, structures, objects, and districts, including archaeological sites, cultural landscapes, and places of traditional cultural importance that are associated with California's history, Native American history, architecture, archaeology, engineering, or culture. Definable areas with historically associated collections of these resources may also comprise historic districts and cultural landscapes (California State Parks 2019). Cultural resources are considered historically significant under CEQA if they meet the following criteria (14 CCR 15064.5):

- Listed in or eligible for listing in the CRHR
- Listed in a local preservation register

- Identified as significant in a historical resource survey (unless the preponderance of evidence demonstrates that it is not historically or culturally significant)
- Determined to be significant by the CEQA lead agency, provided the determination is supported by substantial evidence considering the whole record
- Cultural resources to be considered at the project level include those that are recorded and yet to be recorded. A unique archaeological resource is a site, artifact, or object that is considered to have high probability to meet any of the following criteria (PRC Sec. 21083.2):
- Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information
- Has a special and particular quality such as being the oldest of its type or the best available example of its type
- Is directly associated with a scientifically recognized important prehistoric or historic event or person

To identify potential archaeological and historical resources within the study area, a literature review and records search were conducted using the California Historical Resources Inventory System (CHRIS). In addition, archaeological and historical resource surveys were completed for the proposed project. An impact analysis was then performed to determine whether the proposed project would result in a substantial adverse change to any identified archaeological or historical resources.

The purpose of the literature review and records search was to identify previously documented archaeological, ethnographic, and historical resources in and within a 1-mile radius of the project area, and to identify materials that would help establish a context for potential resource significance. This also included general and property-specific archival research and analysis of historical maps and photographs. According to a search of the CHRIS (Information Center File No. 13009L), there are no previously recorded cultural resources in the study area. However, although no archaeological or built environment resources are recorded within the study area, there are 48 resources within a 1-mile radius of the project site.

For the archaeological survey, qualified archaeologists analyzed the existing and proposed conditions within the study area to identify any known archaeological resources and to determine the potential presence of unknown archaeological resources. This analysis was based on proposed project plans and available technical studies, including geologic and built environment histories, previously completed cultural resources investigations. and historical maps and photographs. For historical resources, a historic resources survey was conducted that identified and evaluated all buildings and structures in the project area determined to be 45 years of age or older. A qualified architectural historian evaluated the identified resources to determine their potential eligibility for listing in the NRHP and CRHR. Department of Parks and Recreation forms documenting identified resources are included in Appendix G.

The CEQA Guidelines define a substantial adverse change in the significance of a historical resource as a significant effect on the environment. A substantial adverse change to archaeological or historical resources is defined to include physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the resource would be materially impaired (CEQA Guidelines Section 15064.5[b][1]). The significance of a historical or archaeological resource is materially impaired when a project diminishes the characteristics that convey its historical significance and that justify its inclusion on a historic register. Following these criteria, an adverse change may include physical impacts or changes to a property's setting and environment. This is consistent with the assessment of adverse effects provided under Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations and guidelines (36 CFR 800.5).

3.4.3.4 Impact Analysis

3.4.3.4.1 CUL-1: Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

Proposed upgrades to the existing terminal that do not require ground disturbance have limited potential to cause substantial changes to historical resources. The historic resources survey identified 5 potential historical resources in the study area. These resources include the Port of Stockton East Wharf (a.k.a., "Berth 2 – Port of Stockton East Complex"), consisting of Berths 2 to 7 and built in 1932; the Port of Stockton East Complex Railway Trestle (a.k.a., "Port of Stockton East Belt Line Rail Trestle"), built circa 1927 to 1933; the Nevada Cement Stockton Import Terminal, which is a complex of seven circular bulk storage bunkers, equipped with an extensive conveyor system connected to the Port's docks at Berth 2 (Bunkers 1 to 7), built in 1979; the Port of Stockton Transit Shed 4, built in 1933; and the Port of Stockton Lift Truck Shed, built in 1933. A summary of these evaluations is provided in Table 25.

Table 25
Identified Buildings and Structures Located in the Project Area

Resource Name	Build Date	NRHP/CRHR Evaluation
Port of Stockton East Wharf	1932	Not Eligible (previously evaluated)
Port of Stockton East Complex Railway Trestle	circa 1927–1933	Not Eligible (previously evaluated)
Nevada Cement Stockton Import Terminal • Bunkers 1 and 2 • Bunkers 3 and 4 • Bunkers 5, 6, and 7	1979	Not Eligible
Port of Stockton Transit Shed 4	1933	Not Eligible
Port of Stockton Truck Lift Shed	1933	Not Eligible

All these resources were evaluated to determine their eligibility for listing in the NRHP and CRHR. The Port of Stockton East Wharf and the Port of Stockton East Belt Line Rail Trestle were determined not eligible for listing in the NRHP as part of the previous Lehigh Southwest Stockton Terminal Project. The California Office of Historic Preservation concurred with these determinations in a letter dated April 28, 2021, and the historic resources survey identified no changes to the status of these properties.

The historic resources survey evaluated and recorded three newly identified resources located in the project area. These resources consist of buildings and structures that were less than 45 years old when previously considered for the proposed Lehigh Southwest Stockton Terminal Project, but that now meet this age threshold for the proposed project. The three resources include the Nevada Cement Stockton Import Terminal; the Port of Stockton Transit Shed 4; and the Port of Stockton Lift Truck Shed.

The historic resources survey found that the Nevada Cement Stockton Import Terminal is a typical late-1970s bulk materials storage complex and does not represent a significant historical trend, association with important persons, distinctive design or construction, or information potential. Although Transit Shed 4 and the Port of Stockton Lift Truck Shed are associated with the Port's early East Complex development, both have diminished integrity due to alterations and the removal of surrounding historic Port facilities and are not considered individually significant or contributors to a potential historic district.

Based on these evaluations, none of the identified buildings and structures are considered historical resources under CEQA for the purposes of this project. Full evaluations of the identified resources are provided in Appendix G.

Impact Determination: The historic resources survey identified several buildings and structures within the study area; however, all evaluated resources were determined to be not eligible for listing in the NRHP or CRHR and therefore do not qualify as historical resources under CEQA. Because no historical resources are present within the study area, the proposed project would not result in a substantial adverse change in the significance of a historical resource. There would be no impact.

Mitigation Measures: None required.

Residual Impact: No impact.

3.4.3.4.2 *CUL-2: Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?*

Portions of the proposed project may involve ground disturbance varying from minor excavation activities to larger-scale project construction footprints. Archaeological resources may be impacted by ground disturbance associated with these project activities. Based on the results of the literature

review, cultural resources records search, and archaeological survey, the vicinity of the study area has the potential to contain archaeological resources. The cultural resources record search identified no archaeological sites within the study area; however, several sites are present within 1-mile of the study area, suggesting that precontact sites may be present in the vicinity.

Analysis of the study area's landform development indicates that the project area was an upland landform adjacent to the productive Sacramento–San Joaquin Delta and would have been available for settlement beginning in the precontact period. However, the proposed project area experienced extensive filling after construction of levees in the 19th century and during subsequent industrial development. Modifications to the landform are clearly visible, including evidence of underground utilities. Findings from geotechnical studies at various locations around the Port are also consistent with the area's environmental and cultural history. Two geotechnical borings conducted at the terminal site for the proposed project revealed 5.5 to 10 feet of artificial fill (Kleinfelder 2019). In addition, the landform history and borings results indicate that the native sediments in the proposed project area were probably inundated at least seasonally, and if so, would have reduced potential to contain archaeological resources.

Archaeological potential is primarily restricted to previously undisturbed sediments in horizontal extent of the area of potential effect. These deposits appear to be present below areas of existing fill at elevations ranging from 5.5 to 10 feet below the ground surface. Native sediments may be encountered by project elements such as foundation or footing construction and utility construction using trenching and drilling entry pits. The potential for buried archaeological resources also includes the potential for Tribal cultural resources, which may be present within native sediments beneath the site. Based on the currently available project information, these and other project activities are unlikely to encounter native sediments; however, deeper ground disturbance could reach native deposits.

Preliminary designs indicate that ground-disturbing activities are not expected to exceed 4 feet for any project elements. However, any project elements with potential ground disturbance that exceed the estimated 5.5 feet to 10 feet of fill, could result in a substantial adverse change to archaeological resources if such resources are present (Kleinfelder 2019; Port 2020). In addition, demolition and the installation of project elements above the recorded artificial fill level, such as new steel and precast concrete support piles, have moderate potential to affect archaeological resources. Significant changes to an archaeological site could also occur from maneuvering construction equipment or from construction activities, such as compression, trampling, rutting, mixing soils, excavating by drills or heavy machinery, and restricting access. These impacts could even affect archaeological resources within previously disturbed artificial fill and other previously disturbed areas.

Impact Determination: Although some project activities have no potential to result in significant impacts to potential archaeological resources, deeper ground disturbance, such as pile installation**,** could impact archaeological resources. As discussed in Section 3.13, although demolition and

improvement activities are not expected to result in significant impacts to known or potential Tribal cultural resources, deeper potential ground disturbance, such as pile installation, and some improvement elements could also have the potential to impact unknown or unexpected Tribal cultural resources. The Port has initiated outreach to Tribes to through the AB-52 process to determine whether there may be Tribal interest in the project area. Therefore, impacts are considered to be potentially significant.

Mitigation Measures: The following mitigation measures would be implemented to reduce potential impacts:

- **MM-CUL-1: Inadvertent Discovery of Cultural Resources and Human Remains.**

  Prior to the start of construction, the Port shall provide the applicant with an Inadvertent Discovery Plan (IDP). The IDP will provide an overview of what may constitute a find, including example pictures, and stipulate procedures to be implemented in the event of a discovery of cultural resources (e.g., archaeological materials, Tribal cultural resources, or human remains) during construction.

  Prior to the start of ground-disturbing construction activities, the project applicant shall provide the IDP to construction contractors, who shall verbally discuss the plan with all workers involved with deeper ground disturbance activities.

  If through the AB-52 process any Tribe requests consultation, the Port shall contact an appropriate Tribal representative to provide Tribal cultural resources training for construction workers, consistent with General Plan Action LU-5.2F. The training shall address appropriate avoidance and minimization measures, requirements for confidentiality and culturally appropriate treatment of Tribal cultural resources, other applicable regulations, and the consequences of violating State laws and regulations.

  The IDP shall stipulate that if potential cultural resources are encountered during ground-disturbing activities, all work within 100 feet of the discovery shall be halted. A qualified archaeologist shall be retained to assess whether the reported material is a cultural resource, define the nature of the resources, assess the potential for the resources to extend beyond the area of the initial discovery within the project area, and provide recommendations as to whether the resource is significant and would be further affected by the project. The Port shall consult with SHPO and potential affected Tribes to determine whether the resource may be a Tribal cultural resource (as defined by CEQA), regarding significance and proposed means of avoiding or mitigating further impacts.

  If the qualified archaeologist or consultation identifies the find as potentially significant, the Port shall implement appropriate treatment measures, which may include avoidance,

preservation in place, additional documentation, controlled excavation, recovery and analysis, curation, or other measures determined appropriate through consultation.

If human remains are discovered, the San Joaquin County Coroner shall be notified immediately in accordance with California Health and Safety Code (HSC) Section 7050.5. If the remains are determined to be Native American, the NAHC shall be notified within 24 hours, and consultation with the Most Likely Descendant shall be conducted in accordance with PRC Section 5097.98.

Residual Impact: Implementation of MM-CUL-1 would reduce potential impacts to previously unidentified archaeological resources by requiring work stoppage, evaluation by a qualified archaeologist, and appropriate treatment of any discoveries in accordance with applicable regulatory requirements. These procedures would avoid or minimize disturbance to archaeological resources, and with implementation of this measure, impacts would be reduced to less than significant.

3.4.3.4.3 CUL-3: Would the project disturb any human remains, including those interred outside of formal cemeteries?

The project area and surrounding vicinity were densely populated, even prior to non-native settlement. Individuals may be interred throughout the project area, including beneath artificial fill. Therefore, human remains may be encountered during ground-disturbing activities, as evidenced by nearby archaeological sites in the vicinity of the study area that are known to contain burials.

Impact Determination: Ground disturbance related to several project activities is not expected to exceed the artificial fill layer in the project area, for which the potential to encounter human remains would be low. This includes staging, upland facility improvements, and various civil improvements and utilities. However, pile installation, demolition, and several other project activities could impact human remains, including those interred outside of formal cemeteries. Therefore, impacts are considered to be potentially significant.

Mitigation Measures: The following mitigation measures would be implemented to reduce potential impacts:

- **MM-CUL-1:** Inadvertent Discovery of Cultural Resources and Human Remains (see CUL-2 for more information).

Residual Impact: Implementation of MM-CUL-1 would require work stoppage, evaluation, and appropriate treatment of any human remains encountered, including coordination with the San Joaquin County Coroner and NAHC, as applicable. These procedures would ensure compliance with state law and culturally appropriate handling, thereby minimizing disturbance. With implementation of this measure, impacts would be reduced to less than significant.

3.5 Energy

This section describes existing energy conditions, applicable regulations, and potential impacts of the proposed project on energy resources.

For the purposes of this analysis, the study area includes the project area, as shown in Figure 1.

3.5.1 Environmental Setting

This section describes the existing energy setting of the project area, including statewide and local energy supply, consumption patterns, and relevant regulatory context.

3.5.1.1 State Energy Resources and Use

Due to the size of its population, California's energy consumption ranks as the second highest in the country, with an estimated total consumption of 6,015 trillion British thermal units (Btu) in 2023. It is also the nation's third-largest electricity consumer and imports more electricity than any other state except one. The state's energy consumption per capita, however, ranks as the third lowest because of its mild climate and policies related to energy efficiency (USEIA 2025).

California is ranked as the 12th highest producer of energy in the U.S. and in 2024 was the fourth-largest electricity producer in the nation, with a mix of electricity generated by coal, hydroelectricity, natural gas, nuclear power, solar power, and wind energy. It is the nation's top producer of solar and geothermal energy and the second highest producer of biomass and hydroelectric power generation (USEIA 2025). Total in-state utility-scale electric generation for California was 216,181 gigawatt-hour (GWh) in 2024, with approximately 60% coming from non-GHG and renewable sources, including hydroelectric power and small-scale solar power (CEC 2026a). Electricity demand, usage, and production in the state is projected to continue increasing due to population growth and other factors, including climate change (CEC 2023).

Gasoline is the most used transportation fuel in California, with 97% of all gasoline being consumed by passenger vehicles and light-duty trucks. In 2024, California consumed an estimated 312,840 thousand barrels of motor gasoline, the majority of which was used for cars, motorcycles, light trucks, and boats (USEIA 2024). Diesel fuel is the second largest transportation fuel used in California, representing 17% of total fuel sales behind gasoline. According to the California Department of Tax and Fee Administration, 3.5 billion gallons of diesel (including off-road diesel) was sold in 2024. Nearly all heavy-duty trucks, delivery vehicles, buses, trains, ships, boats and barges, farm, construction, and heavy-duty military vehicles and equipment run on diesel (CEC 2025).

3.5.1.2 Regional Energy Resources and Use

Pacific Gas & Electric Company (PG&E) provides natural gas and electricity service to the project area, including the Port and the project site. PG&E's service area includes 70,000 square miles in

Northern and Central California and approximately 16 million people. Within San Joaquin County, PG&E owns most of the transmission and distribution facilities, except for those owned and maintained by Lodi Electric, Modesto Irrigation District, and the Port. In 2024, total electricity consumption in the county was estimated at 6,029 GWh (CEC 2026b). Total natural gas consumption in the county in 2024 was 176.79 million therms (CEC 2026c).

3.5.1.3 Port Energy Resources and Use

The Port operates its own municipal electric utility to deliver electricity to its facilities and customers within the Port district. This system is separate from typical city residential electric service and was established when the Port was formed in 1933. PG&E provides electricity to the Port's system pursuant to an industrial tariff (Port 2024a). In 2024, the Port consumed a total of 37.28 million kilowatt hours (kWh) of electricity for commercial, industrial, transportation, communications, and utilities uses (CEC 2026b). Infrastructure upgrades in 2019 were designed for a 40-megawatt capacity across the Port's East and West Complexes. PG&E also supplies the natural gas infrastructure and service to Stockton and the Port area. PG&E is the regulated utility that owns and operates the pipelines transporting natural gas in this region.

3.5.2 Applicable Regulations

3.5.2.1 Federal

3.5.2.1.1 Energy Policy and Conservation Act and CAFÉ Standards

The Energy Policy and Conservation Act of 1975 established nationwide fuel economy standards to conserve oil. Pursuant to this act, the National Highway Traffic Safety Administration (NHTSA), part of the U.S. Department of Transportation (DOT), is responsible for revising existing fuel economy standards and establishing new vehicle economy standards.

3.5.2.2 State

Energy in California is regulated by a series of bills, regulations, and executive orders aimed at decreasing total energy demand and increasing the availability and production of renewable energy for all energy needs.

3.5.2.2.1 State of California Energy Action Plan

California Energy Commission (CEC) is responsible for preparing the state energy plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The Energy Action Plan was originally adopted in 2003 and subsequently updated, most recently in 2008 (CEC 2008), which calls for the state to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy,

the plan identifies a number of strategies, including assisting public agencies and fleet operators in implementing incentive programs for zero-emission vehicles and addressing their infrastructure needs, as well as encouraging urban design that reduces vehicle miles traveled (VMT) and accommodates pedestrian and bicycle access.

3.5.2.2.2 Senate Bill 350: Clean Energy and Pollution Reduction Act

The Clean Energy and Pollution Reduction Act (SB 350), enacted in 2015, established clean energy, clean air, and GHG reduction goals, including reducing GHG to 40% below 1990 levels by 2030 and to 80% below 1990 levels by 2050. The CEC is working with other state agencies to implement the bill. The bill increases California's renewable electricity procurement goal from 33% by 2020 to 50% by 2030. In addition, SB 350 requires California to double statewide energy efficiency savings in electricity and natural gas end use by 2030.

3.5.2.2.3 Senate Bill 100: California Renewables Portfolio Standard Program

The California Renewables Portfolio Standard Program (SB 100), enacted in 2018, set a goal of powering all retail electricity sold in California and state agency electricity needs with renewable and zero-carbon resources (such as solar and wind energy) that do not emit climate-altering GHGs by 2045. SB 100 updates the state's Renewables Portfolio Standard to ensure that by 2030 at least 60% of California's electricity is renewable. It also requires the CEC, California Public Utilities Commission (CPUC), and ARB to use programs under existing laws to achieve 100% clean electricity and issue a joint policy report on SB 100 by 2021 and every 4 years thereafter.

3.5.2.2.4 California Air Resources Board In-Use Off-Road Diesel Vehicle Rule

In July 2007, ARB adopted the Regulation for In-Use Off-Road Diesel-Fueled Fleets (Off-Road Diesel Regulation) to reduce diesel PM and NOx emissions from in-use (existing) off-road heavy-duty diesel vehicles in California. The regulation was adopted in April 2008, amended in 2011, and amended again in 2022. The regulation is applicable to all self-propelled off-road diesel vehicles 25 horsepower or greater used in California and most two -engine vehicles (except on-road two-engine sweepers, including vehicles that are rented or leased [rental or leased fleets]). Vehicles used solely for agriculture are exempted from this regulation.

The Off-Road Diesel Regulation is a multipronged approach to emissions controls that does the following:

- Imposes limits on idling to 5 minutes, requires a written idling policy, and requires a disclosure when selling vehicles
  - All medium and large fleets are required to develop a written idling policy that informs operators of the fleets' vehicles that idling is limited to 5 consecutive minutes or less and to make it available to operators by March 1, 2009. Smal fleets are not required to maintain a written idling policy but are accountable for meeting the idling limits.

  - Requires all vehicles to be reported to ARB in an online reporting system
  - Restricts the adding of older vehicles into fleets starting on January 1, 2014
  - Requires fleets to reduce their emissions by retiring, replacing, or repowering older engines, or installing Verified Diesel Emission Control Strategies (i.e., exhaust retrofits)

The 2022 Amendments include a staggered phase-out of Tier-0 through Tier-2 off-road engines and a restriction on new Tier-3 and Tier-4 vehicles. Beginning January 1, 2024, a fleet may not add a vehicle with a Tier-3 engine to its fleet; the engine tier must be Tier-4 or higher. Beginning January 1, 2024, for large and medium fleets, and January 1, 2028, for small fleets, a fleet may not add a vehicle with a Tier-4i engine to its fleet; the engine tier must be Tier 4F or higher. Starting January 1, 2024, all fleets must use R99 or R100 Renewable Diesel. In addition to reducing tailpipe emissions, most newer equipment that meet higher tier standards are also more energy efficient than older models.

3.5.2.2.5 California Green Building Standards Code

The California Green Building Standards Code (CALGreen; 24 CCR 11) is a state-mandated green building code. Its purpose is to improve public health, safety, and general welfare through enhanced design and construction of buildings using concepts that reduce negative impacts and promote those principles that have a positive environmental impact and encourage sustainable construction practices. CALGreen was adopted to address planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and environmental quality.

3.5.2.3 Local

3.5.2.3.1 Envision Stockton 2040 General Plan

The City's 2040 General Plan (City 2018) sets out policies for land use, transportation, safety, and community health for the City. The City's 2040 General Plan includes new policies that pertain to energy and resource conservation such as the following:

- **Policy LU-5.4:** Require water and energy conservation and efficiency in both new construction and retrofits.
  - Require all new development, including major rehabilitation, renovation, and redevelopment, to adopt BMPs for water use efficiency and demonstrate specific water conservation measures (Action LU-5.4A).
  - Require all new development, including major rehabilitation, renovation, and redevelopment, to incorporate feasible and appropriate energy conservation and green building practices, such as building orientation and shading, landscaping, and the use of active and passive solar heating and water systems (Action LU-5.4B).
- **Policy TR-3.2:** Require new development and transportation projects to reduce travel demand and GHG emissions, support electric vehicle charging, and accommodate multipassenger autonomous vehicle travel as much as feasible.

- **Policy CH-5.2:** Expand opportunities for recycling, reuse of materials, and waste reduction.
  - **Action CH-5.2A:** Use recycled materials and products for City projects and operations where economically feasible, and work with recycling contractors to encourage businesses to use recycled products in their manufacturing processes and encourage consumers to purchase recycled products.
  - **Action CH-5.2B:** Continue to require recycling in private and public.

3.5.2.4 Port

3.5.2.4.1 Renewable Portfolio Standard Procurement Plan

To comply with SB 350 standards, the Port has developed and implemented a Renewable Portfolio Standard Procurement Plan. In the plan's most recent iteration, the Port determined the most efficient and cost-effective approach to meeting these standards is through continued purchase of sufficient state-approved renewable energy products from the active California market. For the compliance period from 2021 through 2030, the Port will determine and implement the most cost-effective options for complying with newly codified laws (Port 2016). Since 2019, the Port has offered its tenants financial incentives to install high-efficiency equipment or systems. Incentives are paid on the energy savings and permanent peak demand reduction beyond baseline energy performance, which include state-mandated codes, federal-mandated codes, industry-accepted performance standards, or other baseline energy performance standards (Port 2019). Other steps that the Port is undertaking to improve energy efficiency include purchasing zero-emission electric vehicles, replacing diesel-powered equipment with cleaner electric models, and completing an energy audit to identify areas where energy consumption can be reduced (Port 2024a).

3.5.3 Environmental Impacts and Mitigation Measures

3.5.3.1 Baseline

As of the time of publication of the NOP/IS for the proposed project, the existing Nevada Cement terminal is fully operational. The terminal uses energy directly through the use of electricity and natural gas to power infrastructure and fuels (diesel and gas) to power terminal equipment and rail movers, and indirectly through fuel use (diesel and gas) from vessel, truck, rail, and employee trips. Energy is provided through the Port's electric system and PG&E natural gas lines.

3.5.3.2 Thresholds

For purposes of this DEIR, the following thresholds, which are based on Appendix G of the CEQA Guidelines (Environmental Checklist), were used to determine whether the proposed project would result in impacts on energy. The proposed project would have an impact on energy if the following applies:

- **ENE-1:** The project would result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.
- **ENE-2:** The project would conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

3.5.3.3 Methodology for Determining Impacts

The energy analysis evaluates whether the proposed project would result in wasteful, inefficient, or unnecessary consumption of energy resources or conflict with applicable state or local plans for renewable energy or energy efficiency, consistent with CEQA Guidelines Section 15126.2(b) and Appendix F (Energy Conservation). The analysis considers project-related energy use during both construction and operation, including transportation-related energy use, and considers the project's size, location, equipment, operational characteristics, and energy efficiency improvements incorporated into the project design. Energy use from existing Nevada Cement operations is compared to the estimated usage that would occur under the proposed project. Potential impacts on energy were qualitatively evaluated based on a review of the proposed project's energy usage, including from utilities and fuels to support transportation, and the Port's *Renewable Portfolio Standard Procurement Plan* (Port 2016).

3.5.3.4 Impact Analysis

3.5.3.4.1 ENE-1: Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Construction of the proposed project would use equipment that consumes energy resources, including electricity and fuels, but would not require unusual or excessive equipment or practices compared to similar projects. Construction equipment would comply with standard BMPs such as equipment idling restrictions and maintaining equipment according to manufacturers' specifications to reduce fuel use.

Project operation, as with current operation, would require the consumption of electricity and natural gas to power lights and equipment. During construction, the existing underground electrical system currently serving the Berth 3/4 area and surrounding terminal facilities will be either relocated or decommissioned and replaced. A new high-capacity electrical service system will be provided by PG&E at a location near the existing service entrance. Two new electrical rooms will be constructed:

one primary room, adjacent to the new storage dome, and another near the dock transfer tower. An existing primary electrical room will supply power to the storage dome, truck lanes, truck and rail loading stations, dust collectors, and ancillary systems associated with Bunkers 1 through 4. The secondary electrical room will serve the new ship unloader, dock screw conveyor, and dock transfer tower. Power and control systems will use a combination of overhead and underground wiring to connect all equipment to a centralized control room. The proposed project would comply with all federal, state, and local regulatory requirements, including coordination with PG&E, related to replacement of energy infrastructure, energy usage, and fuel consumption during construction.

As noted in Table 26, the proposed project would generate an estimated annual electricity demand of 7 million kWh, representing a 49% increase over existing operations. In 2024, the Port consumed a total of 37.28 million kWh of electricity for commercial and industrial uses (CEC 2026b); the proposed project would therefore represent approximately 19% of total Port usage at 2024 levels. Consumption of natural gas and water usage under the proposed project is not expected to change substantially compared to existing usage.

Table 26
Existing and Proposed Energy Usage Estimates at the Project Site

	Existing	Proposed Project
Electricity (kWh)	3,600,000	7,000,000
Natural Gas (therms)	NA	No Change

Although electricity consumption would increase, so would total throughput, as described in Section 2.0. At maximum operations, the terminal would use approximately 3 kWh per ton of material versus approximately 11 kWh per ton under baseline conditions. A key objective of the proposed project (see Section 2.1.2) is to upgrade and increase the efficiency of the existing facility. This entails facility upgrades to more efficiently utilize terminal power and to comply with current design standards. The installation of a modern, high-capacity ship unloader at Berth 3/4 would increase energy efficiency by increasing access to cargo for faster offloading and eliminating the need to reposition ships, which rely on diesel fuel. This would also reduce hold-cleanup times and prolonged vessel activity, which would result in the more efficient use of electricity, gasoline, and diesel fuel to power the ships and operational equipment. The proposed project would upgrade the current operational infrastructure with a new 50,000-metric-ton storage dome, high-capacity infeed conveyors, and an automated reclaim system which would improve operational efficiency and lower power consumption per ton of material. The installation of higher-capacity material handling equipment would enable faster refill times, shorter truck loading cycles, and reduced truck idling, which would result in the more efficient utilization of gasoline- and diesel-powered trucks.

Additionally, the proposed rail plan would improve energy efficiency by reducing the need for multiple daily switches and overall railcar movements.

The proposed project does not include on-site renewable energy generation; however, it would utilize electricity supplied through the Port's existing electrical system, which is subject to the Port's Renewable Portfolio Standard Procurement Plan discussed in the following subsection.

Because the proposed project would be upgraded and modernized to increase total operational efficiency (with increased throughput) and would comply with all relevant state and local plans and policies, the proposed project would have a less-than-significant impact regarding wasteful, inefficient, or unnecessary consumption of energy resources.

Impact Determination: Construction and operation of the proposed project would not include energy consumption that is wasteful, inefficient, or unnecessary. Impacts would be considered less than significant.

Mitigation Measures: None required.

Residual Impact: Impacts would be less than significant.

3.5.3.4.2 ENE-2: Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Pursuant to its *Renewable Portfolio Standard Procurement Plan* (Port 2016), the Port has committed to purchasing state-approved renewable energy from the active California market for use at the Port. Energy use associated with construction and operation of the proposed project would continue to be connected to the existing power grid at the Port and would therefore continue to rely on the State-approved renewable energy procured by the Port. The Port would also offer Nevada Cement financial incentives to install high-efficiency equipment during construction of facility upgrades, as required by the Renewable Portfolio Standard Procurement Plan.

The City's 2040 General Plan (City 2018) includes several policies applicable to the proposed project. Policy LU-5.4 encourages new development to incorporate feasible energy conservation and green building practices. As discussed under ENE-1, the proposed project would modernize the existing terminal with more energy-efficient equipment and infrastructure, including a modern ship unloader, upgraded conveyance systems, automated material handling equipment, and new electrical systems. The proposed project would also comply with all applicable provisions of CALGreen.

Policy TR-3.2 encourages new development and transportation projects to reduce GHG emissions, support electric vehicle charging, and improve transportation efficiency to the extent feasible. The proposed project would improve the efficiency of goods movement by modernizing the existing marine, truck, and rail loading systems and reducing vessel unloading times, truck loading times, and

rail switching requirements. Although the project does not currently include electric vehicle charging infrastructure, it would not preclude future installation, and the proposed project would remain consistent with the policy to the extent feasible for an industrial marine terminal.

Policy CH-5.2 encourages recycling, reuse of materials, and waste reduction. Construction of the proposed project would incorporate construction and demolition debris recycling in accordance with applicable regulations and project mitigation measures (see MM-GHG-2), and terminal operations would continue to emphasize efficient material handling to minimize waste and product loss.

Accordingly, the proposed project would not conflict with the Port's Renewable Portfolio Standard Procurement Plan or applicable state and local plans and policies related to renewable energy and energy efficiency.

Impact Determination: Because the proposed project would comply with applicable state and local energy efficiency requirements, improve the operational efficiency of the existing terminal, and be consistent with the Port's Renewable Portfolio Standard Procurement Plan and the applicable policies of the City's 2040 General Plan (City 2018), impacts would be less than significant.

Mitigation Measures: None required.

Residual Impact: Impacts would be less than significant.

3.6 Geology and Soils

This section describes existing geology and soil conditions, applicable regulations, and potential impacts of the proposed project on geology and soils.

For the purposes of this analysis, the study area includes the project site, including the proposed lease area (Figure 3), demolition areas (Figure 5), the Berth 3/4 rehabilitation area, the ship unloader and conveyance system areas (Figure 7 and 8), rail infrastructure improvements (Figures 9 and 10), laydown and staging areas (Figure 11), areas of utility relocation and upgrades, and adjacent areas that may be affected by project construction.

3.6.1 Environmental Setting

This section describes the existing geology and soils setting of the project area, including regional geologic conditions, soil characteristics, and seismic hazards that may be affected by the proposed project.

3.6.1.1 Soils

The Nevada Cement facility is underlain almost entirely by Yellowlark gravelly loam with 2% to 5% slopes as well as a small amount of Jacktone-Urban land complex with 0% to 2% slopes, as mapped

by the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS; 2025). Soil conditions within the project area have been identified through on-site borings taken for the *Preliminary Geotechnical Investigation Report* (Kleinfelder 2019). Site-specific observations at the facility identify near-surface soils composed predominantly of fill to depths of 5.5 to 10 feet below existing ground surface, placed when the berth was constructed in approximately 1930. This fill was underlain by stiff to hard lean clay and sandy lean clay, and medium dense to dense sandy silt and poorly graded sands (Kleinfelder 2019).

The geology of this area has been mapped by several geologists, including Wagner et al. (1991). According to Wagner et al. (1991), the subject site lies within artificial fill. Soil types recorded in proximity to the site include Dos Palos Alluvium to the southwest, Modesto Formation to the south, and peaty mud to the northwest along the San Joaquin River. The Dos Palos Alluvium is generally described as unconsolidated, moderately to well-sorted gravel, sand, silt, and clay. The Modesto Formation is generally described as alluvial fan deposits composed of gravel, sand, and silt. The Peaty Mud unit is generally described as an intertidal deposit which consists of soft mud and peaty mud (Kleinfelder 2019).

During boring, groundwater was encountered at depths ranging from approximately 15.5 to 25 feet below ground surface (Kleinfelder 2019). Typical groundwater depths range from 3 to 4 feet below ground surface for Yellowlark gravelly loam and at approximately 5 feet below ground surface for Jacktone-Urban land complex (NRCS 2025).

3.6.1.2 Fault Rupture

Surface fault rupture is defined as slip on a fault plane that has spread to the Earth's surface and caused a rupture or disturbance. Fault rupture almost always follows pre-existing faults, which are zones of weakness. No known active faults (defined by the state of California as faults that show evidence of movement during the past 10,000 years) are within 25 miles of the project area (Caltrans and Port 2013), and the project site is not located within a currently designated Alquist-Priolo Earthquake Fault Zone (California Department of Conservation 2019). Numerous active and potentially active faults, however, are identified east and west of the project site. The closest significant earthquake fault to the city is the Greenville Fault, which is located roughly 22 miles west-southwest of the city (City 2018).

3.6.1.3 Ground Shaking

Ground shaking is the most widespread effect of earthquakes. The estimated likelihood of a magnitude 6.7 or greater earthquake in greater San Francisco Bay Area before 2036 is 63%. For individual faults in proximity to the project site, forecasted probabilities include 31% for the Hayward Fault, 7% for the Calaveras Fault, and 3% for the Greenville Fault (22 miles from the city; the closest earthquake fault to the project site). The project site's significant setback from active earthquake

faults would help mitigate impacts related to ground shaking. For other similar industrial sites at the Port in proximity to the project site, the estimated Maximum Considered Earthquake peak ground acceleration adjusted for site class effects was determined to be 0.393g (based on both probabilistic and deterministic seismic ground motion; SEG 2018) which represents a severe to violent shaking hazard. At this level, seismic activity could cause accelerations severe enough to cause major damage to structures and foundations not designed to resist the forces generated by earthquakes, whereas well-designed masonry structures experience slight damage. Underground utility lines are also susceptible where they lack sufficient flexibility to accommodate the seismic ground motion (City 2018).

3.6.1.4 Liquefaction

Soil liquefaction is a state of soil particle suspension caused by a complete loss of strength when the effective stress drops to zero. Liquefaction normally occurs under saturated conditions in soils such as sand in which the strength is purely frictional. Primary factors that trigger liquefaction are as follows: moderate to strong ground shaking (seismic source); relatively clean, loose granular soils (primarily poorly graded sands and silty sands); and saturated soil conditions (shallow groundwater). Because of the increasing overburden pressure with depth, liquefaction of granular soils is generally limited to the upper 50 feet of a soil profile. However, liquefaction has occurred in soils other than clean sand.

Although the California Geological Survey (CGS) and the U.S. Geological Survey have not mapped any seismically induced liquefaction hazard zones at the project site or within the city (City 2018), the *Preliminary Geotechnical Investigation* (Kleinfelder 2019) identifies a main liquefiable zone for the site between depths in the range of 5 to 10 feet and 20 to 45 feet.

3.6.1.5 Lateral Spreading

Lateral spreading is a form of liquefaction that results in lateral ground movement during which cohesive soil layers may fracture, subside, rotate, or disintegrate as a result of seismic activity. During an earthquake, lateral spreading usually takes place along weak shear zones that have formed within a liquefiable soil layer. Lateral spreading has generally been observed to take place in the direction of a free face (i.e., retaining wall, slope, and channel) but has also been observed to a lesser extent on ground surfaces with very gentle slopes.

The *Preliminary Geotechnical Investigation* (Kleinfelder 2019) prepared for the *Lehigh Southwest Stockton Terminal Project Draft EIR* (Port 2020) identifies a potential for lateral spreading at the project site based on the liquefaction analysis. If lateral spreading were to occur, a lateral load due to the ground movement into the adjacent river channel may be applied against the structure foundations. In an extreme earthquake event, the ground deformation associated with lateral spreading could cause excessive pile and/or structure deformation.

3.6.1.6 Slope Failure and Slope Stability

Earthquakes can cause significant slope stress, potentially resulting in earthquake-induced landslides. Landslides most commonly occur in areas with steep slopes or within slide-prone geologic units that contain excessive amounts of water. Other factors that affect slope stability include site geology, climate, and human activity. The project site largely has flat topography, although the Berth 2, Berth 3/4, and rail trestle project improvement areas are on or adjacent to the sloped San Joaquin River shoreline. CGS has not mapped any landslide hazard zones in the project area or in its immediate vicinity (City 2018).

3.6.1.7 Expansive Soils

Expansive soils are high in clay content and increase and decrease in volume upon wetting and drying, respectively. The change in volume exerts stress on buildings and other loads placed on these soils. Expansive soils are common throughout California and can cause damage to foundations and slabs unless properly treated during construction. Grading, site preparations, and backfill operations associated with subsurface structures can often eliminate the potential for expansion.

NRCS identifies the entirety of the project site as having a moderate potential for expansive soils (SJCGIS 2024), and clay soils were identified at the Lehigh Hanson facility (Kleinfelder 2019) (current Nevada Cement facility). No evidence of expansive soil damage, such as foundation uplift or swelling, was observed at the project site (Anchor QEA 2019).

3.6.1.8 Subsidence and Settlement

Subsidence involves a sudden sinking or gradual settling and compaction of soil and other surface material with little or no horizontal motion. Land surface subsidence can result from both natural and artificial phenomena, including tectonic deformation, consolidation, hydrocompaction, collapse of underground cavities, oxidation of organic-rich soils, rapid sedimentation, and the withdrawal of groundwater. Expansive soils and materials are more susceptible to subsidence, including estuarine sediments, organic detritus, or thick organic deposits. Settlement occurs when ground shaking reduces the amount of pressure existing between soil particles, resulting in a reduction of the volume of the soil. Areas are susceptible to differential settlement if they are underlain by compressible sediments, such as poorly engineered artificial fill. Differential settlement can damage structures, pipelines, and other subsurface entities. Earthquakes and seismic activity can accelerate and accentuate settlement.

As noted, the project site has been identified as potentially susceptible to soil expansion, which may also reveal susceptibility to subsidence. As modeled for an earthquake of magnitude 6.5, total seismic settlements in the range of 1.5 to 7 inches are predicted (Kleinfelder 2019). In addition, levees and islands throughout the delta are known to be composed of fill materials, which may be susceptible to settlement.

3.6.1.9 Erosion

Erosion is the detachment and movement of soil materials through natural processes or human activities. The project site is within a Mediterranean climate, which is exemplified by moist winters and dry summers. Therefore, during the winter the project area is more prone to water erosion, whereas in the summer the project area is more prone to wind erosion. No evidence of erosion was observed within the project site (Anchor QEA 2019), although the boneyard (an undeveloped area on the eastern edge of the lease area, adjacent to the Penny Newman Grain Company facility) has been identified as containing slopes with potential for erosion (Lehigh 2015). This potential for erosion is likely minor because of the compacted surface conditions observed in this area.

3.6.1.10 Paleontology

The proposed project is located in an already disturbed area east of the San Joaquin River, south of the confluence with the Stockton DWSC. Prior to historic land modifications, the region was characterized by extensive wetlands, with dry land available only on small hills and natural levees (Wagner et al. 1981). The area was a slightly elevated stream terrace with the low-lying Delta to the west and the higher ground of the Central Valley to the east.

The Bureau of Land Management developed a classification system based on the potential for the occurrence of significant paleontological resources in a geologic unit and the associated risk for impacts to the resource (BLM 2007, 2008). The system is summarized here. Any rock material that contains fossils has the potential to yield fossils that are unique or significant to science. However, paleontologists consider that geological formations having the potential to contain vertebrate fossils are more sensitive than those likely to contain only invertebrate fossils. Invertebrate fossils found in marine sediments are usually not considered by paleontologists to be unique resources, because the geological contexts in which they are encountered are widespread and fairly predictable. Invertebrate fossil species are usually abundant and well-preserved. In contrast, vertebrate fossils are much rarer than invertebrate fossils, and are often poorly preserved. Therefore, when found in a complete state, vertebrate fossils are more likely to be a significant resource than are invertebrate fossils. Thus, geologic formations having the potential to contain vertebrate fossils are considered the most sensitive. Vertebrate fossil sites are usually found in non-marine upland deposits (BLM 2007). The project site is situated on fill materials, atop Holocene alluvium. Alluvial deposits typically contain only invertebrate fossils (if any), and those are out of original depositional context (BLM 2007). Vertebrate fossils are considerably more likely to be significant or unique, as are fossils in their original context (BLM 2008).

3.6.2 Applicable Regulations

3.6.2.1 State

3.6.2.1.1 Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. According to the act, buildings for human occupancy cannot be constructed in regulatory earthquake fault zones established and mapped around the surface traces of active faults. This typically includes areas within approximately 200 to 500 feet of major fault lines. The construction of habitable structures is not proposed as part of the proposed project, and the study area is not in an earthquake fault zone as defined by the act; therefore, the act would not apply to the proposed project.

3.6.2.1.2 Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act of 1990 was developed to reduce threats to public health and safety and to minimize property damage caused by earthquakes, including the effects of ground shaking, liquefaction, landslides, other ground failure, and other hazards. The act directs CGS to identify and map seismic hazard zones for the purpose of assisting cities, counties, and other local permitting agencies to regulate certain development projects in these zones. Before a development permit may be granted for a site in a seismic hazard zone, a geotechnical investigation of the site must be conducted, and appropriate mitigation measures must be incorporated into the project's design.

3.6.2.1.3 California Building Code

The California Building Code contains the minimum standards for design and construction in California. The standards provide requirements for general structural design and include means for determining earthquake loads, as well as other loads (e.g., flood, snow, and wind), for inclusion into building codes. The provisions of the California Building Code apply to the construction, alteration, movement, replacement, and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures throughout California. This code would apply to construction of the proposed project.

3.6.2.2 Local

3.6.2.2.1 City of Stockton Municipal Code

The City regulates building and construction under the City Municipal Code Title 15. Chapter 15.48 addresses Grading and Erosion Control. The following sections apply to the proposed project:

- **Section 15.48.050: Construction and Application.** Includes a requirement that seeks to mitigate hazards associated with erosion: "During construction, construction activities shall be

designed and conducted to minimize runoff of sediment and all other pollutants onto public properties, other private properties and into the waters of the United States."

- **Section 15.48.110: Erosion Control Requirements.** Contains specific provisions for erosion control for those construction projects where a grading permit is not required.
- **Section 15.48.070.** Includes requirements for a grading permit that apply to most construction projects. Such permits require implementation of erosion control measures, often referred to as BMPs.

3.6.2.2.2 Envision Stockton 2040 General Plan

The City's 2040 General Plan (City 2018) addresses hazard protection in the Safety Element. Safety Element policies under the 2040 General Plan which may be applicable to the proposed project are as follows:

- Prepare sufficiently for major events to enable quick and effective response (Policy SAF-2.1).
- Ensure that community members are adequately prepared for natural disasters and emergencies through education and training (Policy SAF-2.3).

3.6.2.2.3 Nevada Cement Facility Plans

Nevada Cement's Emergency Action Plan (EAP) for its Stockton Terminal (Nevada Cement 2026a) communicates general emergency action guidance and detailed specific response procedures in the event of an emergency. The EAP identifies response procedures for the handling of hazardous chemicals in the event of a spill, fire, severe weather, or earthquake.

Nevada Cement's *Consolidated Emergency Response/Contingency Plan* (Nevada Cement 2026b) for the existing facility outlines procedures to minimize hazards from fires, explosions, or unplanned releases of hazardous waste (Nevada Cement 2023).

3.6.3 Environmental Impacts and Mitigation Measures

3.6.3.1 Baseline

At the time of publication of the NOP/IS for the proposed project, Nevada Cement operated a bulk cementitious material receiving and distribution terminal on the project site. The project site is within a highly developed and industrialized area on the San Joaquin River shoreline.

3.6.3.2 Thresholds

For purposes of this DEIR, the following thresholds, which are based on Appendix G of the CEQA Guidelines (Environmental Checklist), were used to determine whether the proposed project would

result in impacts related to geology and soils. The proposed project would have a potentially significant impact if the following apply:

- **GEO-1:** The project would directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
  - Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault
  - Strong seismic ground shaking
  - Seismic-related ground failure, including liquefaction
  - Landslides
- **GEO-2:** The project would result in substantial soil erosion or the loss of topsoil.
- **GEO-3:** The project would 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-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.
- **GEO-4:** The project would be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property.
- **GEO-5:** The project would 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.
- **GEO-6:** The project would directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

3.6.3.3 Methodology for Determining Impacts

Impacts to or associated with geological conditions were qualitatively evaluated based on the potential for the proposed project to temporarily or permanently alter the geology of the project area. In addition, because geological hazards such as earthquakes happen independently of the proposed project, the potential for damage to proposed structures or increased risk of injury due to the existing geologic conditions and seismic hazards of the project area were also qualitatively evaluated.

The measurement index for evaluating impacts associated with geology, soils, and seismicity is risk to the public or the environment from geologic processes. A project would be considered to have a significant impact if it would result in substantial changes in risks to the public and the environment throughout the project area.

The proposed project would be subject to applicable federal, state, and local laws and regulations. Compliance is assumed in this analysis, and local and state agencies would be expected to continue to enforce applicable requirements to the same extent they do now.

3.6.3.4 Impact Analysis

3.6.3.4.1 GEO-1: Would the project directly or indirectly cause 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; or iv) landslides?

The project area is not located within a currently designated Alquist-Priolo Earthquake Fault Zone, and no known surface expression of active faults is believed to cross the project site; therefore, fault rupture through the site is not anticipated.

Because the project site is located a considerable distance from active earthquake faults, the potential for seismic ground shaking at the site is relatively low. However, in the event of a very large earthquake, the project site could be subject to severe to violent shaking, which could result in damage to existing structures and on-site improvements. Proposed improvements would be designed and constructed in adherence with applicable seismic design parameters from the 2022 California Building Code and American Society of Civil Engineers, which are intended to minimize such risks, as well as recommendations from the *Preliminary Geotechnical Investigation* (Kleinfelder 2019) prepared for the project site. Additionally, Nevada Cement's *Consolidated Emergency Response/Contingency Plan* (Nevada Cement 2026b) and EAP (Nevada Cement 2026a) provide site-specific guidance for the handling of hazardous chemicals in the event of an earthquake, thereby reducing the risk of release due to seismic events. Nevada Cement would be required by the Port to maintain and update their Emergency Plan and EAP. As such, the proposed project would not substantially increase the risk of loss, injury, or death involving strong seismic ground shaking.

The existing Nevada Cement facility does not contain any steep slopes or other features suggesting susceptibility to slope failure or landslides. The shoreline adjacent to Berth 2, Berth 3/4, and the rail trestle contains slopes typical of riverbank settings. In this area, riprap and vegetation provide slope stability. The proposed project would not result in changes that would increase the potential for slope failure or landslides.

NRCS maps identify the site as within an area with expansive soils, and site-specific investigations identified potential susceptibility to liquefaction and lateral spreading. Existing structures do not exhibit any damage from these geologic hazards. All grading would be performed in accordance with the recommended grading specifications contained in the City's Municipal Code, and the proposed improvements would be constructed in adherence with applicable seismic standards.

With adherence to existing building standards and regulations, site-specific geotechnical recommendations, and emergency response plans, the proposed project would not cause significant impacts related to risk of loss, injury, or death involving earthquake, seismic ground shaking, liquefaction, lateral spreading, and landslides.

Impact Determination: Impacts related to seismic ground shaking, liquefaction, lateral spreading, and landslides would be less than significant due to compliance with applicable design standards, including the California Building Code, and incorporation of geotechnical recommendations into project design.

Mitigation Measures: None required.

Residual Impact: Impacts would be less than significant.

3.6.3.4.2 GEO-2: Would the project result in substantial soil erosion or the loss of topsoil?

Because the Nevada Cement facility site is generally flat and largely contains previously developed surfaces that appear to have been compacted, surfaced in concrete, or otherwise prepared for development, the potential for substantial soil erosion is considered minimal. Although Berth 2, Berth 3/4, and the rail trestle portions of the project site are located on the San Joaquin River, this riverbank area contains vegetation and armoring (e.g., riprap) that provides slope stability. Evidence of erosion has not been observed within or surrounding the project site, although the boneyard has been identified by the previous tenant as containing slopes with potential for erosion (Lehigh 2015). This potential for erosion is, however, minor, given the compacted surface conditions in this area. The proposed project would not affect the potential for erosion in the boneyard area.

Despite the facilities' relatively low susceptibility to erosion, construction would involve approximately 3.4 acres of ground disturbance, including surface excavation which could erode soils if improperly managed. Topsoil that would be removed during grading or other surface preparation does not serve agricultural purposes or other valuable functions.

Impact Determination: Construction has the potential to result in soil erosion, which would be a potentially significant impact.

Mitigation Measures: The following mitigation measures would be implemented during construction to reduce impacts:

- **MM-BIO-2: Obtain and Implement NPDES Construction Stormwater General Permit** (see BIO-1 for more information).
- **MM-GEO-1: Implement Construction Best Management Practices.** Standard construction BMPs—including but not limited to use of storm drain inlet filters, erosion control (e.g., straw wattles), and maintenance of spill control kits—shall be implemented during construction to

control or respond to spills or other potential sources of construction-related erosion. The Port will include this measure as a requirement in Nevada Cement's lease. Nevada Cement will be required to add the measures as a specification in all construction contracts issued for the project by Nevada Cement.

Residual Impact: Implementation of MM-BIO-2 and MM-GEO-1 would require use of stormwater management and erosion control measures, including installation of BMPs such as inlet protection, erosion control materials, and spill prevention measures, which would minimize soil disturbance and prevent sediment transport. With implementation of these measures, impacts would be reduced to less than significant.

3.6.3.4.3 GEO-3: Would the project 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?

Although the *Preliminary Geotechnical Investigation* (Kleinfelder 2019) identified the site as potentially susceptible to liquefaction, lateral spreading, and settlement, the project site is located in an area considered subject to relatively low seismicity and ground shaking. In addition, susceptibility to geologic hazards is addressed through established design standards. In consideration of these standards, and the site's relatively low seismicity, there would be low potential for impacts from ground shaking, lateral spreading, and settlement. During construction, adherence to Occupational Safety and Health Administration (OSHA) excavation safety guidelines would minimize the potential for worker injury associated with unstable soils.

Although the Berth 2, Berth 3/4, and rail trestle improvement areas are adjacent to the sloped San Joaquin River shoreline, CGS does not identify these areas as being within a mapped landslide hazard zone. A geotechnical investigation conducted for another project within the Port found no known landslides at that site and did not consider landslides a hazard (SEG 2018). Based on the available mapping and geotechnical information, the potential for landslide or slope-failure impacts would be low.

Similar to the discussion provided for GEO-1, the potential for impacts related to these geologic hazards would be further reduced through continued implementation of applicable emergency response and hazardous materials handling plans. The proposed project would be designed to comply with recommendations in the geotechnical investigation prepared for the project site.

Impact Determination: Impacts would be less than significant due to compliance with applicable design standards and implementation of site-specific geotechnical recommendations.

Mitigation Measures: None required.

Residual Impact: Impacts would be less than significant.

3.6.3.4.4 GEO-4: Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

NRCS identifies the entirety of the project site as containing expansive soils (SJCGIS 2024), and site-specific investigations have encountered clay soils (Kleinfelder 2019). Evidence of expansive soil damage such as foundation uplift or swelling was not observed at the facility (Anchor QEA 2019). As part of the proposed project, site grading and surface preparation would be conducted to comply with design standards addressing expansive soils.

Similar to the discussion provided for GEO-1 and GEO-3, the potential for impacts related to these geologic hazards would be further reduced through continued implementation of applicable emergency response and hazardous materials handling plans and site-specific geotechnical design recommendations.

Impact Determination: Impacts would be less than significant due to compliance with applicable design standards and implementation of site-specific geotechnical recommendations.

Mitigation Measures: None required.

Residual Impact: Impacts would be less than significant.

3.6.3.4.5 GEO-5: Would the project 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?

The proposed project would be served by the existing municipal sewage system and would not require the use of septic tanks or alternative wastewater disposal systems and would not affect any such systems.

Impact Determination: Based on the analysis presented above, the proposed project would result in no impact related to septic tanks or alternative wastewater disposal systems.

Mitigation Measures: None required.

Residual Impact: No impact.

3.6.3.4.6 GEO-6: Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

There are no known unique geological or paleontological resources in the project area. Ground disturbance would occur in previously disturbed or developed areas. Because of its geomorphological history, the project area is unlikely to contain significant paleontological resources that are in a reworked depositional context.

Impact Determination: Based on the analysis presented above, the proposed project would result in no impact related to unique paleontological or geologic resources.

Mitigation Measures: None required.

Residual Impact: No impact.

3.7 Greenhouse Gas Emissions

This section describes existing GHG conditions, applicable regulations, and potential impacts of the proposed project on GHG emissions.

For the purposes of this analysis, the study area is defined as the State of California, consistent with the global nature of GHG emissions and the statewide regulatory framework governing GHG reduction.

3.7.1 Environmental Setting

This section describes the existing GHG setting, including the sources and characteristics of GHG emissions, global climate change processes, and statewide trends relevant to the proposed project.

Global climate change results from GHG emissions caused by several activities, including fossil fuel combustion, deforestation, and land use change.

Emissions of GHGs are responsible for the enhancement of the greenhouse effect and contribute to what is termed "global warming," a trend of unnatural warming of the Earth's natural climate. Increased concentrations of GHGs in the Earth's atmosphere increase the absorption of radiation and further warm the lower atmosphere. This process increases evaporation rates and temperatures near the surface. Climate change is a global problem and GHGs are global pollutants, unlike criteria pollutants.

Recent environmental changes linked to global warming include rising temperatures, shrinking glaciers, thawing permafrost, a lengthened growing season, and shifts in plant and animal ranges (CCCC 2018; USGCRP 2018; IPCC 2021). In California, an assessment of climate change impacts predicts that temperatures will increase between 5.6°F to 8.8°F by 2100, based on low and high global GHG emission scenarios (CCCC 2018). Predictions of long-term negative environmental impacts in California include worsening of air quality problems; an increase in the frequency of heat

waves; a reduction in municipal water supply from the Sierra snowpack; sea level rise; an increase in wildfires; damage to marine and terrestrial ecosystems; and an increase in the incidence of infectious diseases, asthma, and other human health problems (CCCC 2018).

3.7.2 Applicable Regulations

3.7.2.1 Federal

3.7.2.1.1 Greenhouse Gas Endangerment Finding (December 7, 2009)

In *Massachusetts v. Environmental Protection Agency* (2007), the U.S. Supreme Court held that GHGs are air pollutants under the CAA and that the USEPA has the authority to regulate GHG emissions if it determines that they endanger public health or welfare. In response, USEPA issued the Endangerment Finding on December 15, 2009 (74 Fed. Reg. 66496), concluding that six GHGs, including CO_2, endanger public health and welfare. The Endangerment Finding provided the legal basis for subsequent federal regulations addressing GHG emissions from mobile sources and other sectors under the CAA. In 2026 as directed by the Trump Administration, USEPA finalized a rule rescinding the 2009 Endangerment Finding. However, that action is currently subject to ongoing litigation, and the future status of the Endangerment Finding and associated federal GHG regulations remains uncertain.

3.7.2.1.2 Heavy-Duty Vehicle National Program

In September 2011, USEPA and the NHTSA established the first federal GHG emission and fuel efficiency standards for medium- and heavy-duty vehicles (Phase 1), covering model years 2014 through 2018. The program was intended to reduce fuel consumption and GHG emissions from combination tractors, heavy-duty pickup trucks and vans, vocational vehicles, and certain engines. USEPA estimated that the Phase 1 standards would reduce approximately 270 million MT of carbon dioxide (CO_2) emissions over the lifetime of the affected vehicles. The program was subsequently expanded through Phase 2 standards covering later model years. However, in 2026 as directed by the Trump Administration, USEPA finalized a rule rescinding the 2009 Endangerment Finding and repealing the federal GHG emission standards for light-, medium-, and heavy-duty vehicles. Those actions are currently subject to ongoing litigation, and the future federal regulatory framework for vehicle GHG emissions remains uncertain. The federal vehicle standards historically applied to on-road trucks that may be used during project construction and operation.

3.7.2.1.3 Light-Duty Vehicle Greenhouse Gas Emissions and Corporate Average Fuel Economy Standards

IIn 2010, the USEPA and the NHTSA established a coordinated program to reduce fuel consumption and GHG emissions from new light-duty vehicles beginning with model year 2012. The program established increasingly stringent fuel economy and GHG emission standards for passenger cars and

light-duty trucks and was subsequently expanded to later model years through additional rulemakings. These standards contributed to improvements in vehicle fuel efficiency and reductions in transportation-related GHG emissions. However, in 2026 as directed by the Trump Administration, USEPA finalized a rule rescinding the 2009 Endangerment Finding and repealing the federal GHG emission standards for on-road vehicles. Those actions are currently the subject of ongoing litigation, and the future federal regulatory framework for vehicle GHG emissions remains uncertain. The program historically applied to light-duty vehicles, including worker vehicles that may be used during project construction and operation.

3.7.2.1.4 Renewable Fuel Standard

The federal Renewable Fuel Standard, established under the Energy Policy Act of 2005 and expanded by the Energy Independence and Security Act of 2007, continues to require annual volumes of renewable fuels to be blended into the nation's transportation fuel supply. Following completion of the original statutory volume schedule in 2022, USEPA continues to establish annual renewable fuel standards through rulemaking pursuant to its authority under the CAA. Although the Renewable Fuel Standard is not directly applicable to the proposed project, it is one component of the federal regulatory framework intended to reduce GHG emissions and increase the use of renewable transportation fuels.

3.7.2.2 State

3.7.2.2.1 Assembly Bill 1493: State Standards Addressing Vehicle Emissions

The California Greenhouse Gas Vehicle Emission Standards (AB 1493), enacted on July 22, 2002, required ARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light-duty trucks. The California Greenhouse Gas Vehicle Emission Standards were subsequently incorporated into California's Low-Emission Vehicle and Advanced Clean Cars programs. These regulations established progressively more stringent GHG emission standards for passenger vehicles and light-duty trucks and have substantially reduced emissions from California's vehicle fleet. Although recent federal actions have challenged California's CAA waiver authority for certain vehicle emission standards, those actions remain the subject of ongoing litigation, and ARB continues to implement California's vehicle emissions program under state law.

3.7.2.2.2 California Executive Order S-3-05

EO S-3-05, signed by then-Governor Schwarzenegger on June 1, 2005, established the following GHG reduction targets for California: 1) by 2010, reduce GHG emissions to 2000 levels; 2) by 2020, reduce GHG emissions to 1990 levels; and 3) by 2050, reduce GHG emissions to 80% below 1990 levels. EO S-3-05 also called for the California Environmental Protection Agency to prepare biennial reports on the following: 1) progress made towards achieving these goals; 2) impacts to California

from global warming; and 3) mitigation and adaptation plans to combat these impacts (CAT 2010). The most recent of these Climate Action Team reports was completed in December 2023.

3.7.2.2.3 California's Renewables Portfolio Standard

Established in 2002 under SB 1078, accelerated in 2006 under SB 107, and expanded in 2011 under SB 2, California's Renewables Portfolio Standard is an ambitious renewable energy standard. The Renewables Portfolio Standard requires that 33% of total retail sales of electricity be procured from eligible renewable sources by the end of 2020. Renewables Portfolio Standard requirements were conservatively excluded from emission calculations associated with electricity use. On April 12, 2011, then-Governor Brown signed SB 2, which requires one-third of the state's electricity to come from renewable sources by 2020. The legislation increases California's former 20% renewable portfolio standard target for 2010 to a 33% renewable portfolio standard by December 31, 2020. Resolution 10-23 adopted by ARB found that the proposed regulation to adopt the 33% renewable standard was expected to reduce GHG emissions from California's utility sector by at least 12 MT carbon dioxide equivalent (CO_2e) per year by 2020 (ARB 2010). In October 2015, SB 350 was signed into law. SB 350 requires a 50% increase in California's renewable portfolio standard and a doubling of energy efficiency by 2030.

3.7.2.2.4 Assembly Bill 32: California Global Warming Solutions Act of 2006 with Updates (2008, 2014, 2017, 2022)

The California Global Warming Solutions Act of 2006 (AB 32) established California's comprehensive program to reduce GHG emissions. AB 32 required ARB to develop and implement regulations for the reporting and verification of statewide GHG emissions and to adopt a statewide GHG emissions limit equivalent to 1990 levels to be achieved by 2020. The legislation also required ARB to prepare a Scoping Plan identifying technologically feasible and cost-effective measures to achieve the statewide emissions reduction target.

ARB adopted the initial AB 32 Scoping Plan in December 2008, establishing a comprehensive framework of regulations, market-based mechanisms, and incentive programs to reduce GHG emissions across all sectors of the California economy. In October 2011, ARB adopted the Cap-and-Trade Program, which established a declining, market-based limit on GHG emissions from major industrial facilities, electricity generators, and fuel suppliers. ARB also established an adaptive management framework to monitor implementation and evaluate the effectiveness of statewide climate policies.

Since the adoption of AB 32, California's climate framework has been expanded through subsequent legislation. SB 32 (2016) established a statewide target of reducing GHG emissions to 40% below 1990 levels by 2030, and AB 1279 (2022) established a statewide policy of achieving carbon neutrality no later than 2045 while maintaining net negative GHG emissions thereafter. Consistent with these

statutory requirements, ARB adopted the 2022 Scoping Plan for Achieving Carbon Neutrality, which provides the State's long-term strategy for reducing GHG emissions across the transportation, energy, industrial, natural and working lands, and waste sectors. The 2022 Scoping Plan identifies a pathway to reduce anthropogenic GHG emissions by approximately 85% below 1990 levels by 2045, with the remaining emissions offset through carbon sequestration and CO_2 removal to achieve statewide carbon neutrality.

3.7.2.2.5 Senate Bill 32: California Global Warming Solutions Act of 2016

SB 32, enacted in 2016, extended California's GHG reduction program beyond the original targets established under the California Global Warming Solutions Act of 2006 (AB 32). AB 32 required ARB to develop and implement a comprehensive statewide program to reduce GHG emissions to 1990 levels by 2020, a target that California achieved ahead of schedule. SB 32 requires ARB to ensure that statewide GHG emissions are reduced to 40% below 1990 levels by 2030. ARB continues to implement this target through regulations, market-based programs, and statewide planning efforts, including the Climate Change Scoping Plan. Subsequently, AB 1279, enacted in 2022, established a statewide policy of achieving carbon neutrality no later than 2045 while maintaining net negative GHG emissions thereafter. The 2022 ARB Scoping Plan (ARB 2022) identifies the regulatory and policy framework for achieving both the 2030 and 2045 statewide climate goals.

3.7.2.2.6 Assembly Bill 197: State Air Resources Board

AB 197, enacted in 2016, complements SB 32 by strengthening legislative oversight of California's climate program and increasing consideration of environmental justice in the implementation of GHG reduction policies. AB 197 requires ARB to provide annual reports to the Legislature on statewide GHG emissions, emissions reductions achieved by regulatory measures, and progress toward the State's climate goals. The legislation also established the Joint Legislative Committee on Climate Change Policies and requires ARB, to the extent feasible, to prioritize direct emissions reductions at large stationary sources and to consider the cumulative impacts of air pollution on disadvantaged and low-income communities.

3.7.2.2.7 Senate Bill 97: CEQA Greenhouse Gas Emissions

SB 97, enacted in 2007, directed the Governor's OPR to develop amendments to the CEQA Guidelines addressing the analysis and mitigation of GHG emissions. The Natural Resources Agency adopted these amendments in 2009, including revisions to Appendix G of the CEQA Guidelines establishing a GHG significance section in the Environmental Checklist and providing guidance for evaluating a project's contribution to climate change and the effects of climate change on a project.

3.7.2.2.8 Governor's Executive Order S-01-07 and the Low Carbon Fuel Standard

EO S-01-07, issued in January 2007, directed ARB to develop a Low Carbon Fuel Standard (LCFS) to reduce the carbon intensity of California's transportation fuels. ARB adopted the LCFS in 2009, and

the program has since been amended several times to establish increasingly stringent carbon intensity reduction targets through 2045. The LCFS encourages the use of lower-carbon transportation fuels, including electricity, renewable diesel, renewable natural gas, hydrogen, and sustainable aviation fuels, through a market-based credit trading program.

3.7.2.2.9 Senate Bill 350: Clean Energy and Pollution Reduction Act

SB 350, enacted in 2015, expanded California's clean energy policies by requiring electric utilities to procure 50% of retail electricity sales from eligible renewable energy resources by 2030 and by establishing a goal of doubling statewide energy efficiency savings in electricity and natural gas end uses by 2030. SB 350 supports implementation of California's statewide GHG reduction targets and has since been supplemented by SB 100, which established more ambitious renewable electricity goals.

3.7.2.2.10 Senate Bill 375

SB 375, the Sustainable Communities and Climate Protection Act of 2008, requires California's metropolitan planning organizations to prepare a Sustainable Communities Strategy (SCS) as part of each Regional Transportation Plan (RTP). The SCS integrates land use, housing, and transportation planning to demonstrate how the region will meet GHG emission reduction targets established by ARB for passenger vehicles. ARB establishes region-specific per-capita GHG reduction targets and periodically updates those targets; the current statewide target update process is underway and is expected to be completed in 2026.

SJCOG adopted its current 2022 RTP/SCS, which demonstrates consistency with ARB's regional target of a 16% reduction in per-capita GHG emissions from passenger vehicles by 2035 relative to 2005 levels. SJCOG is currently updating its RTP/SCS through the 2026 RTP/SCS planning process. SB 375 does not alter local land use authority but instead provides a regional framework for coordinating transportation, housing, and land use planning to reduce GHG emissions.

3.7.2.2.11 Senate Bill 100: 100 Percent Clean Energy Act

SB 100, enacted in 2018, accelerated California's Renewable Portfolio Standard by requiring that 60% of retail electricity sales be supplied by eligible renewable energy resources by 2030 and establishing a statewide policy that 100% of retail electricity sales and state agency electricity purchases be supplied by renewable and zero-carbon resources by 2045. SB 100 requires CEC, CPUC, and ARB to jointly evaluate progress toward these goals through periodic reports and implementation planning.

3.7.2.2.12 Executive Order B-30-15

EO B-30-15, issued in April 2015, established an interim statewide GHG emissions reduction target of 40% below 1990 levels by 2030 and directed state agencies to incorporate climate change into planning and investment decisions. The EO also directed ARB to update the Climate Change Scoping

Plan. The 2030 emissions reduction target established by EO B-30-15 was subsequently codified by SB 32 (2016). ARB's 2022 Scoping Plan provides the State's strategy for achieving the 2030 target and California's longer-term carbon neutrality goals.

3.7.2.2.13 Executive Order B-55-18

EO B-55-18, issued in 2018, established a statewide goal of achieving carbon neutrality no later than 2045 and maintaining net negative GHG emissions thereafter. In 2022, AB 1279 codified this policy by establishing carbon neutrality by 2045 as state law. The 2022 ARB Scoping Plan identifies a pathway to achieve carbon neutrality through approximately an 85% reduction in anthropogenic GHG emissions below 1990 levels by 2045, with the remaining emissions offset through carbon sequestration and CO_2 removal.

3.7.2.3 Regional

3.7.2.3.1 San Joaquin Valley Air Pollution Control District

In 2009, SJVAPCD adopted the Climate Change Action Plan (CCAP), *Guidance for Valley Land-Use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA* (SJVAPCD 2009a), to assist lead agencies in evaluating project-level GHG emissions under CEQA. The guidance relies on the use of performance-based standards, otherwise known as Best Performance Standards (BPS), to assess the significance of project-specific GHG emissions on global climate change. Under this guidance, projects implementing BPS are determined to have a less-than-significant impact. Otherwise, demonstration of a 29% reduction in GHG emissions from BAU levels is required to classify a project's impact as less than significant.

In 2009, SJVAPCD also adopted its Final Staff Report, *Climate Change Action Plan: Addressing GHG Emissions Impacts under CEQA* (SJVAPCD 2009b). The Final Staff Report explains that SJVAPCD was unable to determine a specific quantitative level of GHG emissions increase above which a project would have a significant impact on the environment, and below which it would have an insignificant impact. SJVAPCD staff concluded that impacts of project-specific emissions on global climatic change are cumulative in nature, and the significance thereof should be examined in that context. SJVAPCD requires all projects to reduce their GHG emissions, whether through project design elements or mitigation. Projects achieving performance-based standards that have been demonstrated to be BPS would be considered to have a less-than-significant cumulative impact on global climate change (SJVAPCD 2009b).

3.7.2.4 Local

3.7.2.4.1 San Joaquin County General Plan

San Joaquin County General Plan Policy Document (San Joaquin County 2016) includes goals and policies to address and monitor climate change and to promote sustainable development patterns in the county (San Joaquin County 2016).

3.7.2.4.2 Envision Stockton 2040 General Plan

The City's 2040 General Plan (City 2018) establishes the City's long-term framework for land use, transportation, environmental protection, and climate resilience. A key objective of the General Plan is to encourage infill development and redevelopment within the existing urban area, thereby reducing VMT and associated GHG emissions compared to continued peripheral growth. The General Plan includes policies to reduce transportation-related GHG emissions, support electric vehicle infrastructure, promote energy-efficient development, expand recycling and waste reduction, and incorporate climate adaptation and resilience into City planning.

To implement these policies, the City adopted the CAP (2022), which includes an updated community-wide GHG emissions inventory, establishes consistency with California's current statewide climate targets, identifies measures to reduce emissions from transportation, buildings, energy, solid waste, and municipal operations, and provides an implementation and monitoring framework for reducing community-wide GHG emissions while supporting sustainable growth.

In addition, the 2040 General Plan includes the following policies regarding GHG and climate change that may be applicable to the proposed project:

- Require new development and transportation projects to reduce travel demand and GHG emissions, support electric vehicle charging, and accommodate multipassenger autonomous vehicle travel as much as feasible (Policy TR-3.2).
- Accommodate a changing climate through adaptation, mitigation, and resiliency planning and projects (Policy CH-5.1).
    - Maintain and implement the City CAP and update the CAP to include the following:
        - Updated community-wide GHG emissions inventory
        - 2030 GHG emissions reduction target, consistent with SB 32
        - Estimated 2030 GHG emissions reduction benefits of state programs
        - Summary of the City's progress toward the 2020 local GHG emissions reduction target
        - New and/or revised GHG reduction strategies that, when quantified, achieve the 2030 reduction target and continue emission reductions beyond 2030
    - New or updated implementation plan for the CAP (Action CH-5.1B)
- Expand opportunities for recycling, reuse of materials, and waste reduction (Policy CH-5.2).

- Use recycled materials and products for City projects and operations where economically feasible, and work with recycling contractors to encourage businesses to use recycled products in their manufacturing processes and encourage consumers to purchase recycled products (Action CH-5.2A).
- Continue to require recycling in private and public operations, including construction/demolition debris (Action CH-5.2B).

3.7.2.4.3 City of Stockton Climate Action Plan

In 2014, the City adopted a CAP that established a framework for reducing GHG emissions from both existing and future development. The CAP was developed in accordance with then-current SJVAPCD guidance and established a goal of reducing community-wide GHG emissions by 29% below BAU levels by 2020. The CAP included a combination of voluntary and mandatory measures addressing transportation, energy use, land use, solid waste, municipal operations, and other sectors while recognizing that future updates would be necessary to reflect evolving state climate policies and changing local conditions.

To update and expand its climate program, the City has prepared a draft Comprehensive Climate Action and Adaptation Plan (CCAAP; City 2026). The draft CCAAP includes an updated community-wide GHG emissions inventory, establishes GHG reduction targets consistent with California's 2030 and 2045 statewide climate goals, and identifies measures to reduce emissions from transportation, buildings and energy, solid waste, land use, and municipal operations. In addition, the draft CCAAP incorporates climate adaptation and resilience strategies addressing local climate hazards, including extreme heat, flooding, wildfire smoke, drought, and other climate-related risks.

The draft CCAAP was released for public review in early 2026. As of publication of this DEIR, the CCAAP has not been adopted by the City and therefore does not constitute an adopted GHG plan for purposes of CEQA. Accordingly, this DEIR evaluates consistency with the City's adopted General Plan (City 2018) and 2014 CAP (City 2014) while also considering the draft CCAAP as evidence of the City's evolving climate policy framework where relevant.

3.7.2.4.4 Port of Stockton Clean Air Plan

The Port’s Clean Air Plan (Port 2023) is a comprehensive strategy developed to guide the Port’s efforts to reduce air pollutant emissions and GHGs while maintaining economic activity. The plan establishes a framework for integrating air quality considerations into Port operations, land use decisions, procurement practices, tenant requirements, and capital investments. It emphasizes alignment with state and regional air quality goals, including California’s climate targets, and prioritizes cost-effective, practical measures that improve air quality without negatively impacting the local economy or workforce. A key focus of the Port’s Clean Air Plan is transitioning the Port toward zero- and near-zero-

emission technologies, including electrification of cargo-handling equipment, cleaner truck fleets, shore power for vessels, and renewable energy systems such as solar and battery storage.

3.7.3 Environmental Impacts and Mitigation Measures

3.7.3.1 Baseline

Baseline operations are discussed in Section 2.3. Table 4 presents the throughput levels for the subject 12-months' time at the Nevada Cement terminal. GHG emissions during the baseline period were generated directly based on vessel, truck, rail, and terminal equipment emissions and indirectly through the use of grid-based electricity. As shown in Table 4, the terminal imported 326,712 tons of cementitious material by ship in the subject 12-month time period, and exported 341,003 tons of cementitious material by truck and rail.

Terminal operations during baseline operations included the use of several pieces of terminal equipment: two front-end loaders, a rail-mounted yard wagon, a sweeper, a manlift, a welder, an air compressor, a terminal pickup, a skidsteer, and a forklift. Terminal operations included 25 employees, and the terminal used 3,600,000 kWh of electricity in the Baseline Year.

3.7.3.2 Thresholds

For purposes of this DEIR, the significance of GHG emissions is evaluated consistent with Appendix G of the CEQA Guidelines and CEQA Guidelines Section 15064.4, which provides lead agencies discretion to determine the appropriate methodology for evaluating GHG impacts. Consistent with Appendix G, the proposed project would have a significant GHG impact if it does the following:

- **GHG-1:** Generates GHG emissions, either directly or indirectly, that may have a significant impact on the environment
- **GHG-2:** Conflicts with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions

CEQA Guidelines Section 15064.4 recognizes that climate change is a cumulative environmental problem and that the significance of a project's GHG emissions should be evaluated in the context of the project's contribution to statewide climate goals rather than solely on the magnitude of emissions. The guidelines further provide that a lead agency may consider a project's consistency with an adopted GHG reduction plan or statewide climate strategy, provided that substantial evidence demonstrates that the plan adequately addresses the project's incremental contribution to climate change.

The California Supreme Court and Courts of Appeal have affirmed that lead agencies have discretion in selecting an appropriate methodology for evaluating GHG impacts, provided that the methodology is supported by substantial evidence and is applied consistently. Courts have also recognized that consistency with an adopted CAP or statewide climate strategy may provide

substantial evidence supporting a less-than-significant determination where the plan satisfies CEQA requirements.

Port's Methodology

The Port has historically relied on guidance developed by the SJVAPCD and other California air districts when evaluating GHG emissions.

SJVAPCD has not adopted quantitative CEQA significance thresholds for GHG. Its 2009 CCAP guidance includes BPS and a 29% reduction from BAU approach. SJVAPCD's BPS generally apply to projects with stationary industrial emission sources and land use and development projects. For development projects, BPS includes project design elements, land use decisions, and technologies that reduce GHG emissions. Project proponents can reduce GHG emissions from energy consumption through building designs that increase energy efficiency, conserve water, and use energy-efficient appliances. For other projects, including commercial facilities like port terminals and projects not implementing BPS, SJVAPCD requires that project-specific GHG emissions be quantified and compared to a 29% reduction in GHG emissions as compared to the BAU standard to determine significance (SJVAPCD 2009). However, this guidance predates significant changes in California law, including SB 32, AB 1279, the 2022 ARB Scoping Plan, and subsequent CEQA case law.

The City's CAP also relies on a 29% reduction from 2020 levels as compared with the BAU goal. However, the BAU approach has been effectively rendered unusable after the California Supreme Court's 2015 ruling in *Center for Biological Diversity v. California Department of Fish and Wildlife*. In addition, the City's CAP is not consistent with larger state goals, namely the latest adopted ARB Scoping Plan 2045 (ARB 2022). As discussed in Section 1.6.4, the City has released a draft CCAAP. The City's draft CCAAP adopted the goals of their 2022 Scoping Plan, which lays out a roadmap for achieving the statewide targets of 85% reduction in emissions below 1990 levels and carbon neutrality by 2045. The BAAD 2022 CEQA Guidelines recommend a performance-based approach that evaluates whether a project is consistent with statewide GHG reduction targets, including California's goal of achieving carbon neutrality by 2045. Under this approach, a project's GHG impact would be considered less than significant if it demonstrates consistency with an applicable qualified Greenhouse Gas Reduction Strategy (GHG Reduction Strategy) that meets CEQA requirements. Such plans must include enforceable measures, monitoring mechanisms, and alignment with state targets. In the absence of an applicable qualified GHG Reduction Strategy, a project may demonstrate a less-than-significant impact by incorporating design features and operational characteristics that are consistent with achieving state climate goals.

On December 5, 2008, the South Coast Air Quality Management District's (SCAQMD) Governing Board adopted a staff proposal regarding an interim GHG significance threshold for projects where SCAQMD is lead agency. For industrial projects, a significance threshold of 10,000 metric tons per

year (mty) of CO_2e emissions was established. The Port has determined that the SCAQMD-adopted 10,000 mty CO_2e threshold is suitable for all LAHD projects for the following reasons:

- The SCAQMD industrial source threshold is appropriate for projects with future operations continuing as far out as 2050. The SCAQMD threshold development methodology (SCAQMD 2008) used the EO S-3-05 emission reduction targets as the basis in developing the threshold, with the AB 32 reduction requirements (2020) incorporated as a subset of EO S-3-05. EO S-3-05 sets an emission reduction target of 80% below 1990 levels by 2050. AB 32 requires California to reduce its GHG emissions to 1990 levels by 2020
- The SCAQMD industrial source threshold is appropriate for projects with both stationary and mobile sources, both of which are components of Port projects. California Air Pollution Control Officers Association guidance (CAPCOA 2008) considers industrial projects to include substantial GHG emissions associated with mobile sources and the SCAQMD uses this threshold for projects with both sources in its own documents. For example, in one of its recent EIRs, the SCAQMD applied the 10,000-mty threshold to a refinery project with both mobile and stationary source emissions (combined direct and indirect).The mobile-source emissions included construction equipment, on-road vehicles, and on- and off-site rail transport.
- The SCAQMD industrial source threshold is appropriate for projects with sources that use primarily diesel fuel. Although most of the sources that were considered by the SCAQMD (2008) in the development of the 10,000 mty threshold are natural gas-fueled, both natural gas and diesel combustion produce CO_2 as the dominant GHG (The Climate Registry 2016). Furthermore, the conversion of all GHG species into CO_2e ensures that the GHG emissions from any source, regardless of fuel type, can be evaluated.

Threshold of Significance

After considering these guidelines the Port has set the following thresholds for use in this EIR to determine the significance of proposed project-related GHG impacts. Based on the above, the proposed project would have a significant GHG impact if it does the following:

- GHG-1: Generates GHG emissions that, either directly or indirectly, exceed the SCAQMD 10,000-mty CO_2e threshold. Impacts under GHG-1 are determined by comparing the combined amortized construction and future operational emissions with the baseline scenario. Total construction emissions are amortized over the life of the proposed project or alternative and included in the CEQA impact.
- Conflicts with or obstruct implementation of an applicable GHG reduction plan, policy, or regulation adopted for the purpose of reducing GHG emissions

- Fails to incorporate all feasible design features, operational practices, and mitigation measures that are consistent with achieving California's statewide GHG reduction and carbon neutrality goals
- Generates GHG emissions that, based on substantial evidence and the project's overall consistency with California's climate framework, would represent an incremental contribution to climate change that is cumulatively considerable

3.7.3.3 Methodology for Determining Impacts

A summary of assumptions related to the GHG analysis is provided in the following subsections. Complete details, including modeling assumptions, emission factors, and results for the GHG analysis, are provided in Appendix C-1 and C-2. Global warming potential (GWP) is a measure of how much a given mass of GHG contributes to global warming relative to CO_2. The most prominent GHGs contributing to global warming include CO_2, methane (CH_4), and nitrous oxide (N_2O). Using each pollutant's GWP, emissions of CO_2, CH_4, and N_2O can be converted into CO_2e. In this analysis, GWP factors from the Intergovernmental Panel on Climate Change *Sixth Assessment Report (AR6)* (IPCC 2021) are used. These include 298 for N_2O, 29.8 for fossil-derived CH_4 and 27.2 for non-fossil CH_4.

This analysis provides a qualitative assessment of the proposed project's compliance with the applicable plans, policies, and regulations for the purpose of reducing GHG emissions to determine whether the proposed project would have a significant impact on the environment relative to GHGs. Based on the above guidance, this analysis considers the GHG emissions that would be generated as a result of the proposed project and addresses how potential emissions as well as project design would compare to state, regional, and local plans to address climate change. GHG emissions associated with the proposed project were quantified for both construction and operational phases. Emissions are reported in MT of CO_2e, which accounts for the GWP of CO_2, CH_4, and N_2O. The proposed project's estimated construction and operation-related GHG emissions are provided for the purposes of disclosure.

3.7.3.3.1 Construction

Construction emissions from the proposed project would be generated from off-road construction equipment, on-road vehicles, marine construction vessels (e.g., work boats, barges, and tugboats), and OGVs associated with delivery of major equipment components. Construction activities are anticipated to occur between 2026 and 2031.

Construction-related GHG emissions include exhaust emissions from diesel-fueled equipment and vehicles. Land-based construction emissions were estimated using CalEEMod, with project-specific inputs used where available and default values applied where project-specific data were not available. Marine-related construction emissions, including those from OGVs and commercial harbor craft, were

calculated separately using applicable ARB and USEPA emission factors and methodologies, based on vessel activity, engine characteristics, and fuel use.

Total construction emissions were calculated for each construction year, and emissions were amortized over a 30-year project lifetime to allow comparison with annual operational emissions.

3.7.3.3.2 Operations

The GHG emissions analysis evaluates the maximum operational scenario at full project buildout, including all modes (vessels, trucks, and rail) and equipment. Operational emissions were evaluated for multiple analysis years, including 2023 (baseline), 2031 (Year 1), 2035 (Year 5), and 2046 (Year 15), to capture changes in project activity and fleet characteristics over time. Operational GHG emissions would result from ongoing terminal activities, including on-road trucks, rail locomotives (line-haul and switching), OGVs, commercial harbor craft (e.g., tugboats, barges), on-site mobile equipment (e.g., loaders and yard equipment), employee vehicle trips, and building energy use (electricity consumption).

On-road vehicle emissions were estimated using emission factors from ARB's EMFAC model, whereas locomotive and marine vessel emissions were calculated using ARB and USEPA methodologies based on fuel use, activity levels, and fleet characteristics. As discussed in Section 3.2.3, after completion of the emission estimates prepared for this study (Appendix C-1), ARB released updated guidance on the use of EMFAC2021 off-model adjustment factors and EMFAC2025 emission factors in response to federal actions affecting several California heavy-duty vehicle regulations. The guidance reflects the current regulatory status resulting from the federal government's revocation or invalidation of several CCAA waivers, whereas litigation challenging those actions remains ongoing as discussed in Section 3.2.2.2, and Section 3.7.2.2. As discussed, the long-term applicability of the affected regulations remains uncertain.

The Port reviewed the updated guidance to evaluate whether the revised mobile-source assumptions would materially affect the conclusions of this analysis. The review found that the updates primarily affect medium- and heavy-duty truck emissions, whereas passenger vehicle emissions are largely unchanged. Although application of the updated factors could increase certain truck emissions, truck emissions represent only a portion of the overall project emissions inventory and only one component of the broader emissions inventories evaluated in the GHG assessment. Based on the magnitude of the adjustment factors, comparison of the updated EMFAC2025 model results, and the relatively limited contribution of truck emissions to the overall project emissions inventory, the Port concluded that the updated mobile-source assumptions would not be expected to materially affect the GHG significance determinations presented in this DEIR. Therefore, the significance conclusions remain unchanged.

Building energy emissions were estimated based on projected electricity demand and applicable emission factors.

The analysis incorporates anticipated changes in vehicle and equipment fleets over time, including improvements in fuel efficiency and implementation of state and federal regulations, consistent with ARB projections. Total operational emissions were calculated for each analysis year and compared to baseline conditions to determine project-related increases in GHG emissions.

3.7.3.4 Impact Analysis

3.7.3.4.1 GHG-1: Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

The lead agency has discretion to select the model or methodology it considers most appropriate to enable decision-makers to intelligently consider a project's incremental contribution to climate change (CEQA Guidelines Section 15064.4[c]).

Table 27 presents the proposed project's construction and operational GHG emissions compared to baseline emissions. Amortized construction emissions are added to the annual operational emissions.

Table 27
Proposed Project Greenhouse Gas Emissions in CO_2e (Unmitigated)

Source Category	GHG Emissions CO_2e Metric Tons/Year
Baseline Emissions	
Trucks	1,189
Ships at Berth	548
Ships Maneuvering and Transit	418
Tugboats	16
Rail	425
Employee Vehicles	115
On-Site Electricity Consumption	336
Mobile on Site	465
Baseline Total	**3,511**
Project Emissions	
Construction Emissions	
2026	587
2027	3,206
2028	817
2030	1,072
2031	380
Total	6,062
Total Amortized Over 30 Years	**202**

Source Category	GHG Emissions CO_2e Metric Tons/Year
Proposed Project Year 1	
Trucks	2,056
Ships at Berth	493
Ships Maneuvering and Transit	752
Tugboats	28
Rail	1,056
Employee Vehicles	116
On-Site Electricity Consumption	654
Mobile on Site	406
Year 1 Total	**5,561**
Construction + Year 1 Operational Emissions	**5,763**
Proposed Project Year 5	
Trucks	2,675
Ships at Berth	849
Ships Maneuvering and Transit	1,295
Tugboats	49
Rail	2,988
Employee Vehicles	142
On-Site Electricity Consumption	654
Mobile on Site	463
Year 5 Total	**9,115**
Construction + Year 5 Operational Emissions	**9,317**
Proposed Project Year 15	
Trucks	3,790
Ships at Berth	1,452
Ships Maneuvering and Transit	2,214
Tugboats	427
Rail	4,501
Employee Vehicles	167
On-Site Electricity Consumption	654
Mobile on Site	569
Year 15 Total	**13,775**
Construction + Year 15 Operational Emissions	**13,978**
Proposed Project Year 1 Increment (Year 1 minus Baseline)	**2,252**
Proposed Project Year 5 Increment (Year 5 minus Baseline)	**5,807**
Proposed Project Year 15 Increment (Year 15 minus Baseline)	**10,467**

Notes:

Total emissions may not add precisely due to rounding.
Construction emissions were amortized using a 30-year lifespan

Table 27 demonstrates that the project would substantially increase annual GHG emissions over existing conditions and exceed the 10,000-mty threshold.

Consistency with California's Emissions Goals

ARB's 2022 Scoping Plan provides policies designed to meet the State's GHG emissions reduction targets, specifically reducing anthropogenic emissions to 85% below 1990 levels by 2045. ARB's Scoping Plan is generally based on reducing VMT, decarbonizing buildings, increasing renewable energy use, and electrifying equipment to reduce emissions. Although still a draft and subject to change, the City's draft CCAAP includes two local targets, including emission reductions of 39% below 2022 levels by 2030 and 82% below 2022 levels by 2045, along with net carbon neutrality by 2045.

As detailed further in Section 3.12.1, the proposed project will result in minimal VMT increases and therefore will not contribute to VMT emissions-based increases. However, as shown in Table 27, direct emissions from terminal equipment and indirect emissions from electricity use, and vessel, truck, and rail trips all increase emissions over baseline. As discussed in Section 3.5.3.4, electricity consumption would increase with the proposed project, as would total throughput. However, at maximum operations, the terminal would use approximately 3 kWh per ton of material versus approximately 11 kWh per ton in the baseline. The installation of a modern, high-capacity ship unloader at Berth 3/4 would increase energy efficiency by increasing access to cargo for faster offloading and eliminating the need to reposition ships, which rely on diesel fuel. This would also reduce hold-cleanup times and prolonged vessel activity, which would result in the more efficient use of electricity, gasoline, and diesel fuel to power the ships and operational equipment. Also, the proposed project would upgrade the current operational infrastructure with a new 50,000-metric-ton storage dome, high-capacity infeed conveyors, and an automated reclaim system which would improve operational efficiency and lower power consumption per ton of material. The installation of higher-capacity material handling equipment would enable faster refill times, shorter truck loading cycles, and reduced truck idling, which would result in the more efficient utilization of gasoline- and diesel-powered trucks. Additionally, the proposed rail plan would result in a more efficient use of energy by eliminating the need for multiple daily switches and a reduction of railcar movements. However, emissions from both direct and indirect sources will continue to increase contrary to the state reduction goals.

Impact Determination: As shown in Table 27, although the terminal operations will be more efficient than baseline operations, the proposed project would increase annual GHG emissions associated with freight movement and terminal operations. Because those increases would exceed 10,000 mty, impacts would be considered significant.

Mitigation Measures: The following mitigation measures would be implemented to reduce GHG emissions:

- **MM-GHG-1: Energy Efficiency and Audit.** Nevada Cement shall minimize GHG emissions through measures that reduce or avoid electricity consumption at the proposed project site. Such measures may include, but are not limited to, the use of low-energy demand lighting (e.g., fluorescent or light-emitting diode), installation of solar panels on project buildings, installation of ENERGY STAR-qualified HVAC equipment and variable frequency drivers, and/or the use of regenerative systems on handling equipment. Within 6 months of the effective date of the new lease, Nevada Cement will conduct an energy audit of its operations to determine whether there are additional energy-saving features that can be implemented. The plan must be submitted to the Port for review and approval. The plan will incorporate the following measures at a minimum:
  - Replace less-efficient lighting with energy-efficient lighting, where applicable and in compliance with safety requirements, on the premises and outdoors. Any high-mast parking lot lighting will use LED lighting or a technology with similar energy-saving capabilities, and motion sensors will be installed where lighting is not used for security.
  - When installing new equipment, ensure that the system is not oversized for the building's heating and cooling needs and continues to meet ENERGY STAR or other applicable efficiency ratings.
  - Provide an assessment of additional renewable energy options, including use of solar.
- **MM-GHG-2: Waste Reduction.** Within 9 months of the effective date of the new lease, Nevada Cement will perform an audit of its waste stream to identify areas for total waste reduction, including reductions of single-use products and details for transitioning to a procurement process that prioritizes recycled goods and products. For resultant waste, Nevada Cement will develop a plan to ensure waste is recycled where available.
- **MM-GHG-3: Construction Recycling.** Nevada Cement will require construction contractors to recycle construction and demolition debris. These requirements will be posted on site and included as a contract provision.
- **MM-GHG-4: Electric Vehicle Infrastructure.** Nevada Cement will evaluate and, where feasible, install electric vehicle charging infrastructure to support zero-emission vehicles.

Residual Impact: As shown in Table 27, the majority of the proposed project's GHG emissions are from mobile sources, including trucks, OGVs, and rail locomotives. Implementation of MM-GHG-1 through MM-GHG-3 would reduce emissions from building energy use, construction, and waste; however, these measures would not substantially reduce emissions from mobile sources, which are the primary contributors to total GHG emissions. Although operational measures such as reducing truck idling could, as required by MM AIR-1 and MM AIR-3, provide minor reductions, the majority

of truck-related emissions occur during transit and would not be substantially reduced through feasible project-level measures.

Emissions from trucks, vessels, and locomotives are largely driven by fuel use, fleet characteristics, and regulatory standards that are outside the control of the proposed project. Although the analysis incorporates anticipated fleet turnover consistent with ARB projections, additional feasible project-level mitigation to further reduce these emissions is limited. These sources are regulated through statewide and federal programs, including ARB's LCFS, ACT, and ACF regulations, and the California Sustainable Freight Action Plan, as well as international and federal standards applicable to OGVs and locomotives. Because the principal sources of GHG emissions are on-road trucks, OGVs, rail locomotives, and cargo movement activities that are regulated through statewide, federal, and international programs, the ability of an individual terminal operator to further reduce emissions beyond compliance with existing regulations is limited.

Participation in the Port's Pilot Emissions Reductions Program. In addition to the previously described mitigation measures, Nevada Cement will also have the option to participate in the Port's pilot emissions reduction program.

The Port is developing a pilot program that will allow Port tenants to address residual emissions that cannot be feasibly mitigated through traditional CEQA measures. Similar in concept to the SJVAPCD's VERA program, such a program could provide a mechanism for tenants to fund surplus emission reduction projects within the Port that achieve verifiable reductions in criteria pollutant emissions. Under this program, tenants, after applying all available direct mitigation, may provide funds based on a standardized rate tied to emissions (e.g., cost per ton of NOx reduced). These funds would be used to implement projects that achieve emissions reductions at or near the Port, with a focus on benefiting local communities. The Port is currently exploring several emissions reduction initiatives that could be funded through this program, including the following:

- Electric switcher locomotives serving Port tenants
  - Includes associated charging infrastructure
- Electric cranes
- Electric yard equipment used at public berths
  - Includes associated charging infrastructure
- Renewable energy projects

Because these projects primarily involve electrification, they would also result in reductions in GHG emissions and support consistency with state climate goals. The pilot program is currently being finalized and is expected to be available to Nevada Cement ahead of the final EIR. However, because the emissions are primarily associated with mobile sources that cannot be feasibly reduced at the project level, GHG emissions would remain significant and unavoidable.

3.7.3.4.2 GHG-2: Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

The proposed project is a modernization and expansion of an existing cement transloading facility within the Port and would not involve development of undeveloped land, consistent with General Plan policies supporting efficient use of existing industrial areas. The proposed project would maintain and enhance multimodal goods movement (ship, rail, and truck), which supports efficient transportation of materials and reduces reliance on truck-only transport. Construction emissions would be generated primarily from diesel-powered equipment, vehicles, and marine vessels. Operational emissions would be driven by diesel use from trucks, rail, and OGVs. Although the proposed project would increase overall throughput and associated GHG emissions, as discussed above, it would also improve operational efficiency through modernization of equipment and maintenance of multimodal transport (ship, rail, and truck), which supports efficient goods movement.

There are numerous statewide regulations and initiatives related to overall GHG reductions. For example, ARB's 2022 Climate Change Scoping Plan Update outlines a pathway to reduce statewide emissions to 85% below 1990 levels by 2045 (ARB 2022). The proposed project would be subject to these existing and future regulatory requirements.

Consistency with City of Stockton General Plan

The City's 2040 General Plan (City 2018) includes policies applicable to the proposed project. Policy TR-3.2 requires new development and transportation projects to reduce travel demand and GHG emissions, support electric vehicle charging, and accommodate emerging transportation technologies to the extent feasible. Policy CH-5.2 encourages recycling, reuse of materials, and waste reduction.

With respect to Policy TR-3.2, the proposed project would support efficient goods movement but would not substantially reduce overall travel demand and does not include electric vehicle charging infrastructure. However, the feasibility of electrification for heavy-duty trucks and marine-related operations is currently limited and largely dependent on broader infrastructure and fleet availability.

With respect to Policy CH-5.2, the proposed project would incorporate measures to reduce waste and promote recycling through implementation of MM-GHG-2 and MM-GHG-3, which include waste stream audits and recycling of construction and demolition debris.

Consistency with the Port of Stockton's Clean Air Plan

Although the Port's Clean Air Plan does not meet the standards for a qualified CAP to rely on for CEQA purposes, the proposed project only considers consistency with relevant measures as outlined in Table 28 because the Port's Clean Air Plan incorporates GHG reduction measures and is applicable to the project.

Table 28
Consistency with Port of Stockton Plan

Measure		Consistency
TRUCKS-1	Identify ways to route trucks away from the community and work with city and regional partners to implement the actions.	Truck routing is primarily controlled by the Port and local jurisdictions. The proposed project would continue to utilize designated Port roadways and regional routes (e.g., Navy Drive and SR-4) and would not introduce new routes through residential areas. The proposed project would not conflict with this measure and is consistent.
TRUCKS-2	Reduce fugitive dust emissions resulting from trucks.	The proposed project would implement SJVAPCD rules and mitigation measures (e.g., MM-AIR-2 through MM-AIR-4) to control fugitive dust and reduce emissions from truck activity. The proposed project is consistent with this measure.
TRUCKS-3	Collaborate with other agencies on a regional anti-idling plan and increased enforcement of idling limits at distribution centers, warehouses, or other facilities within the Port.	Although regional coordination is led by the Port and regulatory agencies, the proposed project includes on-site idling restrictions and operational improvements to reduce queueing (MM-AIR-3). The proposed project supports this measure and is consistent.
TRUCKS-4	Identify ways to enhance goods movement efficiency and improve traffic flow, particularly around neighborhoods impacted by trucks.	The proposed project would improve operational efficiency through upgraded unloading equipment, rail improvements, and modernized truck loading systems, reducing congestion and idling within the terminal. The proposed project is consistent with this measure.
TRUCKS-5	Assist truck operators in securing grant funds for zero-emission trucks and infrastructure.	This measure is primarily implemented by the Port and State agencies. The proposed project would comply with ARB regulations and encourage use of newer, cleaner trucks (MM-AIR-4), but does not directly provide funding. The proposed project supports this measure and is consistent.
TRUCKS-6	Develop the Port of Stockton Electric Vehicle Blueprint to identify the actions needed to support a zero-emissions truck transition.	This is a Port-led planning measure. The proposed project would not preclude future electrification and would allow integration of zero-emission truck infrastructure as it becomes available. The proposed project is consistent.
TRUCKS-7	In partnership with tenants, facilitate the development and implementation of Zero Emissions Truck Transition Plans at each facility to accelerate the introduction of zero-emission trucks.	The proposed project includes measures encouraging cleaner trucks and installation of limited charging infrastructure (MM-AIR-4). However, full transition depends on broader technology and infrastructure availability. The proposed project supports this measure and is consistent.
EQUIP-1	Develop the Port of Stockton Electric Vehicle Blueprint to identify the actions needed to support a zero-emissions equipment transition.	This is a Port-led planning measure. The proposed project would not preclude future electrification of equipment and would allow integration of such technologies. The proposed project is consistent.

Measure		Consistency
EQUIP-2	Seek grants to buy zero-emissions equipment and help terminal operators secure grants.	Although grant programs are administered by the Port or State agencies, the proposed project would support participation by prioritizing cleaner equipment (MM-AIR-5). The proposed project is consistent.
EQUIP-3	In partnership with tenants, facilitate the development and implementation of Zero Emissions Terminal Transition Plans at each facility to accelerate the introduction of zero-emissions equipment.	The proposed project would prioritize zero- and near-zero-emission equipment where feasible (MM-AIR-5) and includes some electrified equipment. Full transition is constrained by technology availability. The proposed project supports this measure and is consistent.
EQUIP-4	Transition all Port-owned equipment to zero emissions by 2030 or in advance of the State regulation, whichever is earlier, when feasible. Sub-Strategy: Beginning in 2025, all new equipment purchases will be zero emissions, when feasible.	This measure applies to Port-owned equipment and is not applicable to the proposed project. The proposed project would not conflict with this measure.
EQUIP-5	Set a goal to transition tenant-owned equipment to zero emissions by 2035 or in advance of State regulation, when feasible.	The proposed project includes commitments to use the cleanest available equipment and prioritize zero-emission options where available (MM-AIR-5). However, full transition may not be feasible within the timeframe due to technological constraints. The proposed project supports this measure and is consistent.
EQUIP-6	Evaluate the use of renewable diesel in cargo-handling equipment.	The proposed project could accommodate the use of renewable diesel or other cleaner fuels but does not mandate their use. The proposed project would support this measure and is consistent.
SHIPS-1	Conduct technology demonstrations for barge- or land-based systems that eliminate at-berth emissions.	This measure is implemented at the Port level. The proposed project would reduce vessel emissions indirectly by improving unloading efficiency and reducing vessel time at berth. The proposed project would not conflict with Port programs to increase efficiency and is consistent.
SHIPS-2	Develop an incentive program to encourage the deployment of the cleanest ships to Stockton.	This measure is implemented at the Port level. The proposed project would not conflict with such programs and would benefit from cleaner vessel fleets over time. The proposed project is consistent.

Source: Port of Stockton 2023

Consistent with CEQA Guidelines Section 15064.4, the quantified GHG emissions are presented to disclose the magnitude and sources of project emissions and to evaluate opportunities for feasible emissions reductions. The significance determination is based primarily on whether the project's incremental contribution to climate change is consistent with California's current statutory framework

for reducing GHG emissions, including the 2022 ARB Scoping Plan and applicable state and local regulations, rather than on comparison to any single numeric emissions threshold.

Impact Determination: The proposed project would not conflict with applicable plans, policies, or regulations adopted for the purpose of reducing GHG emissions, including the City's 2040 General Plan (City 2018), and would be consistent with Policies TR-3.2 and CH-5.2 as well as policies included in the Port of Stockton Clean Air Plan. Impacts would be less than significant.

Mitigation Measures: Although mitigation is not required, MM-GHG-1 through MM-GHG-4 are included as part of the proposed project and would further reduce potential impacts:

- **MM-GHG-1: Energy Audit** (see GHG-1 for more information).
- **MM-GHG-2: Waste Reduction** (see GHG-1 for more information).
- **MM-GHG-3: Construction Recycling** (see GHG-1 for more information).
- **MM-GHG-4: Electric Vehicle Infrastructure** (see GHG-1 for more information).

Residual Impact: Impacts would be less than significant.

3.8 Hazards and Hazardous Materials

This section describes existing hazards and hazardous materials conditions, applicable regulations, and potential health, safety, and environmental impacts of the proposed project related to hazards and hazardous materials.

For the purposes of this analysis, the study area includes the project site (including the proposed lease area [Figure 3], demolition areas [Figure 5], the Berth 3/4 rehabilitation area, the ship unloader and conveyance system areas [Figure 7 and 8], rail infrastructure improvements [Figures 9 and 10], and laydown and staging areas [Figure 11]) and surrounding areas that may be affected by project activities. A discussion of hazardous materials currently used on the project site under current operations is provided in Section 3.8.1.2. Construction would involve the use of standard construction equipment and hazardous materials such as oil, gas, solvents, paints, and hydraulic fluids.

3.8.1 Environmental Setting

This section describes the existing hazards and hazardous materials setting of the project area, including known hazardous material sites, on-site hazardous materials, and emergency response planning.

3.8.1.1 Listed Hazardous Material Sites

Surrounding sites potentially containing hazardous materials were identified through a search of the DTSC EnviroStor and SWRCB GeoTracker database websites (DTSC 2025; SWRCB 2025). Within a 1.5-mile radius of the proposed project footprint, the EnviroStor database lists 29 cleanup sites and

the GeoTracker database identifies 32 cleanup sites with active, open, or unidentified statuses (with some sites occurring in both databases). The GeoTracker database additionally identifies three DTSC hazardous waste sites and three land disposal/landfill sites within the 1.5-mile radius. The project site occurs within the Stockton Ordnance Depot military evaluation site; no other EnviroStor or GeoTracker listed sites occur within 1,000 feet of the project site.

3.8.1.1.1 Stockton Ordnance Depot

The former Stockton Ordnance Depot includes 518.7 acres within the Port's East Complex, West Complex, and within a portion of Robert's Island. The East Complex former Stockton Ordnance Depot area includes the project site. The Stockton Ordnance Depot was used for military purposes from 1941 through 1973. No hazards or potential environmental liabilities from past use by the Department of Defense remain based upon records research, site inspections, and removal actions (Vincent 2012). The Envirostor Database lists the status of the site as "No Further Action."

3.8.1.2 On-Site Hazardous Materials

The existing Nevada Cement facility receives and distributes bulk cementitious materials. Cement is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200). If improperly managed, exposure to cement can cause skin irritation, serious eye damage, allergic skin reaction, and respiratory irritation. (Nevada Cement 2015). GGBFS, a cement additive that is also used at the facility may also cause skin burns, eye damage, cancer, or organ damage (Skyway Cement Company 2015). GGBFS may also contain significant amounts of toxic hexavalent chromium and various heavy metals. Although identified as "not flammable" on their respective Safety Data Sheet (SDS) (Skyway Cement Company 2015; Nevada Cement 2015), both cement and GGBFS may be physical irritants and carcinogenic if airborne as dust. Fly ash, which is also used in making cement products, may cause severe skin burns and eye damage, allergic skin reaction, and respiratory irritation, and prolonged inhalation exposure may cause pulmonary chronic bronchitis and cancer (Heidelberg Materials 2023). Use of Portland cement for infrastructure projects typically includes a 15% to 30% mix of fly ash, with higher percentages used for mass concrete placements (DOT 2017).

To avoid the deleterious effects of cement, GGBFS, and fly ash, these materials are managed according to their respective SDSs. This includes use of protective handling measures such as personal protective equipment; appropriate storage measures, including stockpiling in well-ventilated areas with controlled access; implementation of exposure response procedures including immediate medical attention; and spill response procedures, including scooping or vacuuming spills to avoid dust production. Nevada Cement has developed and maintains emergency response plans that include emergency containment and cleanup procedures, in accordance with the California Division of Occupational Safety and Health (Cal/OSHA) requirements (Nevada Cement 2026a, 2026b). The emergency response plans communicate general emergency action guidance and detailed specific emergency action and evacuation procedures to follow in the

event of an emergency, including facility hazards, natural disasters, and fire. Local emergency responders, such as the Stockton Fire Department, would also employ appropriate protective equipment or procedures during emergency response involving potentially hazardous materials.

In addition to personal hazards, bulk cementitious materials may pose an environmental hazard if accidentally released. In the event of a significant accidental release of hazardous substances, Nevada Cement is required to adhere to state (OSHA) emergency containment and cleanup procedures and reporting guidelines. The facility has been designed to minimize accidental releases, including through use of pneumatic systems to convey product, storage in enclosed bunkers, and transfer in enclosed truck loading alleys. Nevada Cement also maintains and implements operational BMPs, including but not limited to regular sweeping and vacuuming, equipping storm drains with filters, and restricting vehicle movement to designated areas.

Maintenance and operation of the existing terminal require the use of common materials which may be hazardous (e.g., lubricating oils, cleaners, equipment fuel). Nevada Cement provides annual California Environmental Reporting System and Hazardous Materials and Wastes Inventory Matrix Report submittals detailing quantities and management of potentially hazardous materials at the facility (Nevada Cement 2026b). The facility includes a covered Hazardous Materials Shed located east of Bunker 2 (Figure 2) that is used for storage of both hazardous materials and hazardous waste in a covered and contained structure. Some materials are also stored in the facility's Maintenance Building or within other appropriate areas on site.

No potentially hazardous materials are known to be present in facility components planned for removal, although, because of the age of structures, lead paint, asbestos or materials containing mercury or polychlorinated biphenyls (PCBs) could be present. Contamination may also be present in areas where excavation would occur. This may include aerially deposited lead (ADL) along roadways or residual pesticides in areas where herbicide spraying has occurred.

3.8.1.3 Emergency Planning, Plans, and Programs

3.8.1.3.1 U.S. Coast Guard Maritime Response Program

In coordination with and support of local, state, Tribal, federal, and private sector partners, USCG provides maritime first response through search and rescue operations, environmental response to pollution and damage to the marine environment, law enforcement, disaster preparedness, and public safety awareness (USCG 2026).

3.8.1.3.2 Regional Municipal Plans

The San Joaquin County Office of Emergency Services (SJCOES) authored the 2019 San Joaquin County Emergency Operations Plan (EOP; SJCOES 2019a), which addresses San Joaquin County's response to all hazards, including incident management structure, compliance with relevant legal

statutes, other relevant guidelines, whole community engagement, continuity of government focus, and critical components of the incident management structure. The EOP includes response protocol specific to hazards and hazardous materials.

3.8.1.3.3 Port of Stockton 2024–2026 Utility Wildfire Mitigation Plan (Final)

The Port's plan aims to document the Port's programs, practices, and measures to reduce the risk of the Port's electric supply system originating or contributing to the ignition of a wildfire and to improve the resiliency of the electric grid (Port 2024b). This plan also includes a standardized emergency management system pursuant to the California Office of Emergency Services Standardized Emergency Management System Regulations.

3.8.1.3.4 Nevada Cement Facility Plans

Nevada Cement's EAP for its Stockton Terminal (Nevada Cement 2026a) and Consolidated Emergency Response/Contingency Plan (Nevada Cement 2026b) communicate general emergency action guidance and detailed specific emergency action procedures to follow in the event of an emergency or evacuation, including facility hazards, natural disasters, and fire.

3.8.1.4 Schools and Airports

There are no schools, airstrips, airports, or other sites potentially sensitive to hazards or hazardous materials within the proposed project vicinity. The nearest school is Washington Elementary School, located approximately one-third mile to the southeast. The closest airport is the Stockton Municipal Airport, located approximately 5 miles southeast of the project site.

3.8.1.5 Wildfire Hazards

The Port is located in a region of the state with a very low wildfire risk. No part of the Port's service territory is located in or near the High Fire Threat District designed in CPUC's Fire Threat Map. The entirety of the Port's service territory is designated as "non-fuel" or "moderate" in the California Department of Forestry and Fire Protection's Fire and Resource Assessment Program Fire Threat Map (Port 2024b). The project site is not within any fire hazard severity zones (CAL FIRE 2023). There are no wildlands within the project area, and wildland fires do not pose a risk to the project site.

3.8.2 Applicable Regulations

3.8.2.1 Federal

3.8.2.1.1 Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) established a regulatory system to track hazardous wastes from the time of generation to final disposal, frequently described as "cradle-to-grave." The law requires safe and secure procedures to be used in treating, transporting, storing, and

disposing of hazardous wastes. RCRA's provisions give state regulatory agencies authority to regulate solid and hazardous wastes. In California, DTSC is authorized to implement RCRA in lieu of USEPA.

3.8.2.1.2 U.S. Department of Transportation Hazardous Materials Regulations (49 Code of Federal Regulations 100–185)

The DOT Hazardous Materials Regulations cover all aspects of hazardous materials packaging, handling, and transportation. Under DOT regulations, a hazardous material is "a substance or material that the Secretary of Transportation has determined is capable of posing an unreasonable risk to health, safety, and property when transported in commerce, and has designated as hazardous under Section 5103 of federal hazardous materials transportation law (49 USC 5103)." Potentially applicable parts include Part 171 (General Information, Regulations and Definitions) and Part 172 (Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, Training Requirements, and Security Plans).

3.8.2.1.3 Emergency Planning and Community Right-to-Know Act (42 USC 11001 et seq.)

Also known as Title III of the Superfund Amendments and Reauthorization Act, the Emergency Planning and Community Right-to-Know Act (EPCRA) was enacted by Congress as the national legislation on community safety. This law was designated to help local communities protect public health, safety, and the environment from chemical hazards. To implement EPCRA, Congress required each state to appoint a State Emergency Response Commission. These commissions were required to divide their states into Emergency Planning Districts and to name a Local Emergency Planning Committee for each district. EPCRA provides requirements for emergency release notification, chemical inventory reporting, and toxic release inventories for facilities that handle chemicals.

3.8.2.1.4 National Oil and Hazardous Substances Pollution Contingency Plan

More commonly called the National Contingency Plan, the National Oil and Hazardous Substances Pollution Contingency Plan establishes principles to respond to both oil spills and hazardous substance releases. Among others, the National Contingency Plan establishes the National Response Team, the Regional Response Teams, and general responsibilities of On-Scene Coordinators; requires notification of any discharge or release to the National Response Center; and identifies the responsibilities for federal agencies that may be called upon during response planning.

3.8.2.2 State

3.8.2.2.1 Hazardous Waste Control Law

The Hazardous Waste Control Law (HSC Division 20, Chapter 6.5) is the basic hazardous waste law for California. The Hazardous Waste Control Law implements the federal RCRA cradle-to-grave waste management system in California, although this program regulates more materials as hazardous wastes than the federal program. California hazardous waste regulations can be found in 22 CCR 4.5

(Environmental Health Standards for the Management of Hazardous Wastes). The program is administered by DTSC.

3.8.2.2.2 Porter-Cologne Water Quality Control Act

The Porter-Cologne Act (Division 7 of the California Water Code) is the primary state regulation that addresses water quality standards. Under the act, SWRCB has the ultimate authority over water rights and water quality policy. The act also established nine RWQCBs to oversee water quality on a day-to-day basis at the regional level. The state and regional boards regulate all pollutant or nuisance discharges that may affect either surface water or groundwater. Jurisdictional resources in the project area are expected to be under the jurisdiction of the RWQCB. Under oversight by USEPA, SWRCB, and RWQCB have the responsibility for establishing regulatory standards and objectives for water quality, developing Total Maximum Daily Loads (TMDLs) for impaired waterbodies, and issuing NPDES permits. The proposed project may require Waste Discharge Requirements (WDRs) if waters on site are considered jurisdictional.

3.8.2.2.3 Hazardous Material Release Response Plans and Inventory Law

The Hazardous Material Release Response Plans and Inventory Law (HSC Division 20, Chapter 6.95) is a right-to-know law requiring businesses to develop a Hazardous Materials Management Plan or a business plan for hazardous materials emergencies if they handle more than 500 pounds, 55 gallons, or 200 cubic feet of hazardous materials. In addition, the business plan must include an inventory of all hazardous materials stored or handled at the facility above these thresholds. This law is designed to reduce the occurrence and severity of hazardous materials releases. The Hazardous Materials Management Plan or business plan must be submitted to the Certified Unified Program Agency (CUPA). The state has integrated the federal EPCRA reporting requirements into this law, and once a facility is in compliance with the local administering agency requirements, submittals to other agencies are not required.

3.8.2.2.4 Standards Applicable to Transporters of Hazardous Waste

Standards Applicable to Transporters of Hazardous Waste (HSC Chapter 13; 22 CCR-66263.10-66263.50) establishes standards that apply to persons transporting hazardous waste within, into, out of, or through the state if the transportation requires a manifest under Section 25160 of the HSC. "Transporter" means a person engaged in the off-site transportation (or movement) of hazardous waste by air, rail, highway, or water. This hazardous waste regulation applies to carriers transporting hazardous waste when that waste is subject to the manifesting requirements of Chapter 12. In general, transporters of hazardous waste must comply with these requirements and statutory requirements in HSC, Division 20, Chapter 6.5, Articles 6 and 6.5, as well as the specific DOT requirements referenced throughout the transporter regulations.

3.8.2.2.5 Occupational Health and Safety, Including 29 Code of Federal Regulations

Cal/OSHA and OSHA are the agencies responsible for assuring worker safety in the handling and use of chemicals in the workplace. Pursuant to the Occupational Safety and Health Act of 1970, OSHA has adopted numerous regulations pertaining to worker safety, contained in 29 CFR. These regulations set standards for safe workplaces and work practices, including standards relating to hazardous material handling. Cal/OSHA assumes primary responsibility for developing and enforcing state workplace safety regulations. Because California has a federally approved OSHA program, it is required to adopt regulations that are at least as stringent as those found in 29 CFR. Cal/OSHA standards are generally more stringent than federal regulations.

Cal/OSHA regulations concerning the use of hazardous materials in the workplace, as detailed in 8 CCR, include requirements for safety training, availability of safety equipment, accident and illness prevention programs, hazardous substance exposure warnings, and emergency action and fire prevention plan preparation. Cal/OSHA enforces hazard communication program regulations that contain training and information requirements, including procedures for identifying and labeling hazardous substances, communicating hazard information related to hazardous substances and their handling, and preparation of health and safety plans to protect workers and employees at hazardous waste sites. The hazard communication program requires that Material SDSs be available to employees and that employee information and training programs be documented.

3.8.2.3 Local

3.8.2.3.1 Envision Stockton 2040 General Plan

The City's 2040 General Plan (City 2018) includes policies in the safety element that address public safety, emergency response, and hazards. The following policies regarding hazards and hazardous materials may be applicable to the proposed project:

- Minimize the risk to city residents and property associated with the transport, distribution, use, and storage of hazardous materials (Policy SAF-2.9).
  - Restrict transport of hazardous materials within the City to routes that have been designated for such transport (Action SAF-2.9A).
  - When appropriate, require new development to prepare a hazardous materials inventory and/or prepare Phase I or Phase II hazardous materials studies, including any required cleanup measures (Action SAF-2.9B).
  - Educate the public regarding the types of household hazardous wastes and the proper methods of disposal (Action SAF-2.9C).

3.8.2.3.2 Unified Hazardous Waste and Hazardous Management Regulatory Program and San Joaquin County Public Health Services

The Unified Hazardous Waste and Hazardous Management Regulatory Program (SB 1082 1993) is a state and local effort to consolidate, coordinate, and make consistent existing programs regulating hazardous waste and hazardous materials management. California Environmental Protection Agency adopted implementing regulations for the Unified Program (27 CCR Division 1, Subdivision 4, Chapter 1) in January 1996. The Unified Program is implemented at the local level by CUPAs.

SJCEHD is the CUPA for all cities and unincorporated areas within San Joaquin County. The concept of a CUPA was created by the California legislature to minimize the number of inspections and different fees for businesses. SJCEHD provides the management and recordkeeping of hazardous materials and underground storage tank sites for San Joaquin County, including the City. Through the Hazardous Materials Program, SJCEHD inspects businesses for compliance with the Hazardous Waste Control Act. Hazardous waste is subject to storage time limits, disposal requirements, and container labeling requirements.

3.8.2.3.3 California Health and Safety Code Section 25500 and San Joaquin County Office of Emergency Services

The responsibilities of SJCOES include effective planning for emergencies, including those related to hazardous material incidents. SJCOES coordinates planning, response to emergencies, improves procedures for incident notification, and provides training and equipment to safety personnel. SJCOES is required by HSC Section 25500 to: 1) prepare an inventory and information system for the storage and location of hazardous materials in San Joaquin County; 2) oversee the preparation and collection of plans for those businesses that use hazardous substances; 3) prepare area response plans that will incorporate inventory data, training for emergency responses, and evacuation plans; and 4) present an inspection plan and data management plan to the state for approval.

3.8.2.3.4 City of Stockton Fire Department

The City Fire Department provides limited oversight of hazardous materials. The Fire Department is responsible for conducting inspections for code compliance and fire-safe practices, and for the investigation of fire and hazardous materials incidents. The Fire Department regulates explosive and hazardous materials under the Uniform Fire Code, and permits the handling, storage, and use of any explosive or other hazardous materials.

3.8.3 Environmental Impacts and Mitigation Measures

3.8.3.1 Baseline

At the time of publication of the NOP/IS for the proposed project, Nevada Cement operated a bulk cementitious material receiving and distribution terminal at the Port and the remainder of the project site was within highly developed and industrialized areas.

3.8.3.2 Thresholds

For purposes of this DEIR, the following thresholds, which are based on Appendix G of the CEQA Guidelines (Environmental Checklist), were used to determine whether the proposed project would result in impacts related to hazards and hazardous materials. The proposed project would have an impact if the following apply:

- **HAZ-1:** The project would create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
- **HAZ-2:** The project would 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.
- **HAZ-3:** The project would emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school.
- **HAZ-4:** The project would 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 create a significant hazard to the public or the environment.
- **HAZ-5:** The project would be located within an airport land use plan area or, where such a plan has not been adopted, be within 2 miles of a public airport or public use airport, and would result in a safety hazard or excessive noise for people residing or working in the project area.
- **HAZ-6:** The project would impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- **HAZ-7:** The project would expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

3.8.3.3 Methodology for Determining Impacts

Analysis of impacts pertaining to hazards and hazardous materials was based on existing hazardous material conditions recorded on and off site; existing and planned emergency action plans; and siting relative to schools, residents, airports, or other sensitive receptors.

The analysis in this section is based in part on information and data available from the DTSC EnviroStor and the SWRCB GeoTracker database websites; regional emergency response plans; federal, state, local, and Port regulations; fire hazard maps; public records for schools and airfields; and industry SDSs. For the purposes of the hazards and hazardous materials analysis, the study area

is defined as the project site (proposed lease area [Figure 3], demolition areas [Figure 5], the Berth 3/4 rehabilitation area, the new ship unloader and conveyance system areas [Figure 8], the area of rail infrastructure improvements [Figures 9 and 10], and laydown and staging areas [Figure 11]) and immediate surroundings.

3.8.3.4 Impact Analysis

3.8.3.4.1 HAZ-1: Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Proposed project operations would not create any new uses of hazardous materials, although throughput of bulk cementitious materials would increase. Facility infrastructure improvements to increase storage capacity and material throughput have been designed to address and avoid potential release of bulk cementitious materials into the environment and exposure to people. Nonetheless, improper management of potentially hazardous materials could result in impacts to persons and the environment. Existing conditions include site-specific operational and management plans to address these types of hazards.

As detailed in Section 2, new or replacement facility equipment associated with the proposed project has been designed to ensure proper containment of bulk cementitious materials and to avoid hazardous material impacts to persons and the environment. The new unloader would be equipped with a completely enclosed conveyance system. Similar to existing conditions, material unloading and transfer throughout the improved facility would occur either by a new mechanical material handling system leading to the new storage dome or by the existing pneumatic transport system to other existing storage structures to keep the product contained and dry. The new dome planned to replace the existing Bunker 7 would be thoroughly modernized to provide improved containment. Upgrades to the truck loading lanes would also provide improved material containment.

With construction of these design improvements, there remains potential for impacts to persons and the environment from improper management of cement, GGBFS, fly ash, and common industrial materials (e.g., lubricating oils, cleaners, equipment fuel). This includes potential water quality impacts or other environmental impacts from accidental spills, as well as injury or mortality from improper handling of materials by facility employees. The increase in facility throughput may increase the potential for these hazards. Under existing conditions, these potential hazards are addressed through Nevada Cement's facility-specific emergency response plans (Nevada Cement 2026a, 2026b). Annual inventories of potentially hazardous materials are provided via California Environmental Reporting System and Hazardous Materials and Wastes Inventory Matrix Report submittals. Potential adverse impacts associated with management of such materials would be further avoided through adherence with federal, state, and local regulations, including but not

limited to maintaining hazardous waste inventories, complying with building and fire codes, and providing storage and shipment of potentially hazardous materials per regulatory requirements. Operations would also follow City and County provisions for emergency response for accidental release of hazardous materials.

Local emergency response agencies, such as the Stockton Fire Department, currently provide service to the existing Nevada Cement facility and other industrial tenants, and would employ appropriate equipment and procedures when responding to emergencies involving potentially hazardous materials. Additional response or enforcement actions to address accidental upset of potentially hazardous materials would occur in compliance with applicable regulations, including but not limited to, response by the SJCEHD, CDFW, RWQCB, or DTSC.

Potentially hazardous building materials may be encountered during demolition and construction, which could be hazardous to the environment or persons if improperly managed. This may include asbestos, lead paint, materials containing mercury or PCBs, and soils contaminated with ADL or residual pesticides. Construction workers can be exposed to lead during the removal, renovation, or demolition of structures painted with lead pigments, or excavation of ADL-contaminated soils. Workers may develop a variety of ailments from substantial lead exposure, such as neurological effects, gastrointestinal effects, anemia, and kidney disease. Asbestos exposure can occur during removal, renovation, or demolition of asbestos-containing materials such as insulation for pipes, floor tiles, and building materials. Breathing asbestos fibers can result in asbestosis (buildup of scar-like tissue in the lungs), loss of lung function, lung cancer, mesothelioma, and even death. High mercury exposure can result in permanent nervous system and kidney damage. PCBs have been shown to cause cancer as well as serious non-cancer health effects in animals, including the following: effects on the immune system, reproductive system, nervous system, and endocrine system and other health effects. These exposure hazards from construction are typically addressed through OSHA regulations, and risk of exposure can be evaluated through pre-construction hazardous material surveys.

Construction activities would involve the use of equipment that contains oil, gas, or hydraulic fluids that could be spilled during normal usage or during refueling. Spilled industrial materials can pose a hazard to construction workers, as well as to the environment, including potentially impacting water quality in the San Joaquin River. These impacts are typically addressed through implementation of construction BMPs, often applied as part of the NPDES permitting process.

Although the facility and project area occur within the Stockton Ordnance Depot military evaluation site, recent investigations and historic site use indicate that this designation would not pose a hazardous material risk during construction and operations. No hazards or potential environmental liabilities from past use by the Department of Defense remain based upon records research, site inspections, and removal actions (Vincent 2012). The majority of the project site has been developed

and operated as a bulk cementitious material receiving and distribution terminal for many years, and most ground-disturbing activities would occur in already disturbed areas. Because of these factors, the site's designation as a military evaluation site is unlikely to result in significant impacts.

Impact Determination: Proposed infrastructure upgrades associated with the proposed project have been designed to improve containment of bulk cementitious materials during receipt, storage, and transfer, thereby reducing the potential for releases to the environment and exposure to people. However, the proposed increase in throughput would result in increased handling of cementitious materials and common industrial materials (e.g., fuels, lubricants, and cleaners), which could pose hazards to workers and the environment if improperly managed. In addition, construction activities could expose workers and the environment to potentially hazardous materials, including asbestos-containing materials, lead-based paint, PCBs, mercury-containing materials, ADL, or residual pesticides, as well as accidental releases of fuels or other construction-related materials. Although existing plans, standard practices, and regulatory requirements address many of these risks, the potential for exposure and accidental release remains under both construction and operational conditions. Therefore, impacts would be potentially significant.

Mitigation Measures: The following mitigation measures would be required to reduce impacts:

- **MM-BIO-2: Obtain and Implement NPDES Construction Stormwater General Permit.** (See BIO-1 for more information.)
- **MM-BIO-3: Conduct In-Water Construction During Established Window.** (See BIO-1 for more information.)
- **MM-HAZ-1: Pre-Construction Hazardous Materials Survey and Worker Training.** Prior to demolition activities, Nevada Cement will complete a pre-construction survey for potentially hazardous materials, including, but not limited to, asbestos, lead paint, mercury- and PCB-containing materials, ADL, and residual pesticides. Surveys will be completed in adherence with relevant DTSC guidelines. In the event that potentially hazardous materials are encountered, Nevada Cement will manage and dispose of such materials in compliance with the relevant regulatory agencies such as OSHA, California Department of Public Health, and SJVAPCD. Nevada Cement shall also ensure compliance with OSHA regulations to address potential hazards associated with the site's designation as a military evaluation site, including through measures such as appropriate training of workers and the development of contingencies for responding to hazardous material conditions that may be encountered on site.

Residual Impact: Implementation of MM-BIO-2 and MM-BIO-3 would require the use of construction BMPs and adherence to in-water work restrictions, which would minimize the potential for releases of hazardous materials during construction and reduce the risk of impacts to water quality and biological resources. MM-HAZ-1 would require pre-construction identification, handling, and disposal procedures of potentially hazardous materials encountered during demolition and

construction in accordance with applicable federal and state regulations, and worker training, which would minimize exposure risks to workers and the environment. With implementation of these measures, impacts would be reduced to less than significant.

3.8.3.4.2 HAZ-2: Would the project 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?

As described under HAZ-1, the proposed project would result in an increase in throughput of bulk cementitious material, and a commensurate increase in use of common industrial materials. The proposed infrastructure upgrades have been designed to provide improved containment of bulk cementitious materials during receipt, transfer, and storage compared to existing conditions.

Despite these improvements, there remains an inherent potential for hazards from accident conditions at industrial facilities. This includes exposure of persons or the environment to potentially hazardous cementitious materials and common industrial materials. The Stockton Fire Department is equipped to respond in the unlikely event of a site accident, and response plans have been developed for the region.

Impact Determination: Management of bulk cementitious materials and use of common industrial materials has an inherent potential to impact persons or the environment under upset and accident conditions, including accidental releases during construction or operations. Although the proposed project includes infrastructure upgrades that would improve containment compared to existing conditions, the increase in material throughput would result in increased handling of these materials and a corresponding potential for accidental releases. Although existing site-specific emergency response and handling plans, standard practices, and regulatory requirements address many of these risks, the accidental release of hazardous materials could expose workers or the environment to hazardous materials, including potential impacts to soil, surface water, or air quality. Therefore, impacts would be potentially significant.

Mitigation Measures: The following mitigation measures would be required to reduce impacts:

- **MM-BIO-2:** Obtain and Implement NPDES Construction Stormwater General Permit
- **MM-BIO-3:** Conduct In-Water Construction During Established Window
- **MM-HAZ-1:** Pre-Construction Hazardous Materials Survey and Worker Training

Residual Impact: Implementation of MM-BIO-2 and MM-BIO-3 would require the use of construction BMPs and adherence to in-water work restrictions, which would minimize the potential for releases of hazardous materials during construction and reduce the risk of impacts to water quality and biological resources. MM-HAZ-1 would require pre-construction identification, handling, and disposal procedures of potentially hazardous materials encountered during demolition and construction in accordance with

applicable federal and state regulations, and worker training, which would minimize exposure risks to workers and the environment. Together, these measures would reduce the likelihood and severity of impacts associated with upset and accident conditions involving hazardous materials. With implementation of these measures, impacts would be reduced to less than significant.

3.8.3.4.3 HAZ-3: Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?

The nearest school to the project site is Washington Elementary School, located approximately one-third mile to the southeast. No school is proposed within the 0.25-mile radius of the project site, and given the area's zoning (Port lands), it is unlikely that a school would be constructed within this radius.

As discussed in Section 3.12, trucks would enter the facility at the truck gates at Port Road A/Harbor Street and would travel from the terminal to Navy Drive via Fresno Avenue. Most trucks (90%) would travel east on Navy Drive to connect to the Crosstown Freeway Extension (SR-4) to access the freeway system. A smaller number of trucks (10%) may continue traveling east on Harbor Street to West Webster or (10%) continue traveling south on Fresno to connect to West Charter Way. Operations at the terminal generally see approximately 80% of the daily truck calls within the first 5 shipping hours of the day (5 a.m. to 10 a.m.), with the balance of truck calls spread throughout the day. Additional truck traffic generated by the proposed project would continue to be limited to designated truck routes.

The proposed project would utilize the same existing truck and train routes that it currently uses under existing operations. Therefore, there would be no change from existing conditions in regard to routing of hazardous materials.

Impact Determination: Based on the analysis presented above, the proposed project would result in a less-than-significant impact related to hazardous material emissions or handling in the vicinity of a school.

Mitigation Measures: None required.

Residual Impact: Less than significant.

3.8.3.4.4 HAZ-4: Would the project 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?

The project site occurs within the 518.7-acre former Stockton Ordnance Depot military evaluation site. As described in Section 3.8.1.1.1 and under HAZ-1, the historical uses of the project site and a search of hazardous materials databases indicate that the current state of the project site would not

pose a substantial hazardous material risk during construction and operations. No hazards or potential environmental liabilities from past use by the Department of Defense remain based upon the current condition of the project site, records research, site inspections, and removal actions (Vincent 2012; DTSC 2025; SWRCB 2025).

The majority of the project site has been developed and operated as a bulk cementitious material receiving and distribution terminal for many years, and most ground-disturbing activities would occur in already disturbed areas. As demonstrated by the site's history and recent investigations, along with regulations protecting workers, there would be no significant impact related to the site's location within the Stockton Ordnance Depot military evaluation site. In addition, potential hazards from construction in these types of areas are typically addressed through adherence with OSHA, federal, and state regulations developed to protect workers and other receptors from exposure to hazardous materials.

Impact Determination: Based on the analysis presented above, the proposed project would result in less-than-significant impacts related to the proposed project's location on a former military evaluation site. Impacts would be less than significant due to existing site conditions, prior investigation and remediation, and compliance with applicable regulations.

Mitigation Measures: Although mitigation is not required, MM-HAZ-1 is included as part of the proposed project and would further reduce potential impacts:

- **MM-HAZ-1: Pre-Construction Hazardous Materials Survey and Worker Training** (see HAZ-1 for more information).

Residual Impact: Impacts would be less than significant.

3.8.3.4.5 HAZ-5: For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

The proposed project is not located within an airport land use plan area, and the nearest airport is located 5 miles southeast of the project site.

Impact Determination: Based on the analyses presented above, the proposed project would result in no impact related to aviation, airports, or public use of airports.

Mitigation Measures: None required.

Residual Impact: No impact.

3.8.3.4.6 HAZ-6: Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The San Joaquin County EOP (SJCOES 2019a) was developed in consideration of activities occurring within industrial areas of the city. The USCG is responsible for providing maritime accident response. Additionally, the Stockton Fire Department is equipped to respond during an emergency. The proposed project would not interfere with any emergency response or evacuation plans or emergency access.

Construction would occur within existing developed industrial areas of the Port and would not physically interfere with any emergency response or evacuation pathways. As discussed in Section 3.12.3, the proposed project would have less-than-significant traffic impacts, including effects on emergency response.

Impact Determination: The proposed project would not interfere with implementation of any emergency response or evacuation plans and would not generate significant traffic impacts affecting emergency access. Therefore, impacts would be less than significant.

Mitigation Measures: None required.

Residual Impact: Impacts would be less than significant.

3.8.3.4.7 HAZ-7: Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

The project site is not located within any designated fire hazard severity zones, and the site is not susceptible to wildland fire hazards. The facility is located within a heavily industrialized area of the city, and there is no surrounding vegetation that would be susceptible to wildland fires. Construction and operation of the proposed facility would not expose individuals or structures to any significant wildland fire risks.

Impact Determination: As the proposed project is not within any designated fire hazard severity zones and the site is not susceptible to wildland fire hazards, the proposed project would result in no impacts related to wildland fires.

Mitigation Measures: None required.

Residual Impact: No impact.

3.9 Hydrology and Water Quality

This section describes existing hydrology and water quality conditions, applicable regulations, and potential impacts of the proposed project on hydrology and water quality.

For the purposes of the hydrology and water quality analysis, the study area is defined as the project site (proposed lease area (Figure 3), demolition areas (Figure 5), the Berth 3/4 rehabilitation area, the new ship unloader and conveyance system areas (Figure 8), the area of rail infrastructure improvements (Figures 9 and 10), laydown and staging areas (Figure 11), the facility's stormwater discharge outfall in the San Joaquin River, adjoining San Joaquin River waters, and areas immediately south of the project site that contribute runoff to the Nevada Cement facility drainage system.

3.9.1 Environmental Setting

This section describes the existing hydrologic and water quality setting of the project area, including surface and stormwater conditions, drainage patterns, flood hazards, groundwater conditions, and characteristics of the San Joaquin River that may be affected by the proposed project.

3.9.1.1 Surface and Stormwater

The majority of the surfaces within the existing and proposed Nevada Cement lease area are paved with impermeable asphalt or concrete, with the exception of a small earthen but disturbed area on the eastern perimeter of the lease area. The facility is relatively flat, although the shoreline east of Berth 2 includes sloped riverbanks. There are six storm drain inlets within the existing leasehold and 23 storm drain inlets in the proposed leasehold. Storm drains inlets within the existing leaseholds are equipped with Revel Environmental Manufacturing filter inserts and some are surrounded with wattle filters (Filtrexx type) (Lehigh 2015). All existing leasehold drains discharge through a common pipe into the San Joaquin River. There are an additional two discharges when the new leasehold is realized. The Nevada Cement terminal facility also receives runoff from other Port and tenant areas. Runoff enters the facility's storm drain system, co-mingles with the facility's stormwater, and discharges at the San Joaquin River stormwater discharge outfalls. The existing leasehold discharge outfall occurs adjacent to the Stockton DWSC, which is listed as impaired for the following TMDL/Section 303(d) list constituents (Lehigh 2015): chlorpyrifos; dichlorodiphenyltrichloroethane; diazinon; dioxin; furan compounds; pesticides; mercury; organic enrichment/low dissolved oxygen; PCBs; unknown toxicity; invasive species; and temperature.

The Nevada Cement facility drainage system is part of the Port's municipal separate storm sewer system (MS4) and is regulated accordingly. Any modifications to the drainage system are required to occur under Port oversight and in compliance with MS4 permit terms.

Cementitious material is caustic and can degrade water quality if released. Therefore, Nevada Cement implements active and passive control measures to prevent accidental spill or emission of cementitious materials to stormwater or other surface waters. As summarized in Section 3.8, this includes use of pneumatic systems to convey product, storage in enclosed bunkers, transfer in enclosed truck loading alleys, and implementation of BMPs such as regular sweeping and

vacuuming, restricting vehicle movement to designated areas, and equipping storm drains with filters (as noted above).

3.9.1.2 Flood Hazards

San Joaquin County maintains Flood Insurance Rate Maps (FIRMs), as required by the Federal Emergency Management Agency (FEMA). These FIRMs indicate the potential for flooding in various locations. The upland portion of the Nevada Cement facility is located in a "Zone X Other Flood Area," which indicates an area with 0.2% annual chance of flood or an area with 1% annual chance of flood with average depths of less than 1 foot or with drainage areas less than 1 square mile, as well as areas protected by levees from a 1% annual chance of flood (FEMA 2009). Berths 2 and 3/4, and the rail trestle associated with Berth 2 are located within or above the San Joaquin River, outside of the 100-year flood zone.

Upstream dam failures could cause flooding in the project area, which is within the dam inundation zone of the New Melones, San Luis, Lake McClure, Camanche, and New Hogan dams (SJCOES 2019b). California SB 92 (2017) requires emergency action plans for all dams, except those classified as "low hazard." Tsunamis and seiches are also not considered to be significant threats in the Stockton area (City 2007).

3.9.1.3 Groundwater

The project area occurs within the San Joaquin Valley Groundwater Basin, which is a subsection of the Greater Central Valley Basin. Groundwater in the area is recharged by local precipitation and through percolation from the surrounding surface waters. Groundwater overdraft conditions have existed in the San Joaquin County Basin since the 1920s, although elevations have recovered and stayed relatively constant since 1999 (CWS 2016).

As noted, the facility largely contains impermeable surfaces, with runoff collected in a system of drain inlets for conveyance and discharge to the San Joaquin River. There is a small undeveloped area on the eastern portion of the proposed lease area which may contain permeable earthen surfaces where minimal percolation into the groundwater table can occur.

3.9.1.4 San Joaquin River

Berths 2 and 3/4, and the rail trestle occur in the San Joaquin River, adjacent to the Stockton DWSC and just west of the San Joaquin River ship turning basin. The Stockton DWSC is a portion of the San Joaquin River, maintained by USACE to a depth of -35 feet MLLW, which begins in San Francisco Bay and terminates in Stockton. It is used as a shipping channel to provide access to the interior of the Central Valley from the open sea for large hauling vessels. The San Joaquin River turning basin is located on the eastern end of the Stockton DWSC, in an area where the river widens, which allows vessels to reverse orientation prior to departure. The shoreline in the project area is developed or

armored with rock riprap and berthing infrastructure. The shoreline along Berth 2 contains a very small area of riparian vegetation adjacent to the existing wooden trestle, including several small (less than 6 inches in diameter at breast height) walnut trees.

The San Joaquin River channel substrate in the project area contains mud and silt, and water quality is characterized by low dissolved oxygen levels and high water temperatures during the late summer and early fall, due to the terminus of the channel approximately 1.5 miles to the east. Water quality monitoring and elutriate toxicity testing results from past Port maintenance dredging sediment characterization efforts have not indicated toxicity concerns (USACE 2015; Port 2020) for sediments within the project area.

3.9.2 Applicable Regulations

3.9.2.1 Federal

3.9.2.1.1 Clean Water Act

The Clean Water Act (CWA) is the principal statute governing water quality on a national level. The CWA sets water quality standards that states use to regulate discharge of pollutants into the nation's waters. The statute employs a variety of regulatory and non-regulatory tools to reduce pollutant discharges into waterways. It mandates permits for wastewater and stormwater discharges, regulates publicly owned works that treat municipal and industrial wastewater, requires states to establish site-specific water quality standards for navigable bodies of water, and regulates other activities that affect water quality. USEPA has delegated responsibility for implementation of portions of the CWA in California, including water quality control planning and programs, to SWRCB and nine RWQCBs.

Important applicable sections of the CWA are as follows:

- Sections 303 and 304 provide for water quality standards, criteria, and guidelines.
- Section 401 requires an applicant for any federal permit that proposes an activity which may result in a discharge to waters of the United States to obtain certification from the state that the discharge will comply with other provisions of the Act. Certification is provided by the RWQCB.
- Section 402 establishes the NPDES, a permitting system for the discharge of any pollutant (except for dredge or fill material) into waters of the United States. This permit program is administered by the RWQCB.
- Section 404 establishes a permit program for the discharge of dredge or fill material into waters of the United States. This permit program is administered by USACE.

3.9.2.1.2 Rivers and Harbors Act

The Rivers and Harbors Act of 1899 prohibits discharge of refuse matter into navigable waters or tributaries thereof of the United States without a permit. Permits are also required for any activities that excavate, fill, or alter the course, condition, or capacity of any port, harbor, channel, or other areas covered by the act. Many of these activities are additionally regulated by the CWA. In-water components of the proposed project would obtain approval under the Rivers and Harbors Act through authorization from USACE, likely via a Standard Individual Permit.

3.9.2.1.3 National Flood Insurance Program

The National Flood Insurance Program, administered by FEMA, requires that local governments covered by federal flood insurance pass and enforce a floodplain management ordinance that specifies minimum requirements for any construction within the 100-year flood zone. FEMA is responsible for preparing maps delineating these areas.

3.9.2.2 State

3.9.2.2.1 California Fish and Game Code

FGC 5650 prohibits discharge of harmful materials to waters of the state. It is unlawful to deposit in, permit to pass into, or place where it can pass into California waters, any petroleum, acid, coal or oil tar, lampblack, aniline, asphalt, bitumen, or residuary product of petroleum; any carbonaceous material or substance; any refuse, liquid or solid, from a refinery, gas house, tannery, distillery, chemical works, mill, or factory of any kind; any sawdust, shavings, slabs, or edgings; any factory refuse, lime, or slag; any *cocculus indicus;*[2] or any substance or material deleterious to fish, plant, mammal, or bird life. FGC 5655 requires that parties responsible for polluting waters of the state pay for removal costs and environmental damages.

FGC 1600–1607 requires CDFW notification for any activity that could affect the bank or bed of any stream that has value to fish and wildlife. After notification, CDFW has the responsibility for preparation of a Streambed Alteration Agreement, in consultation with the project proponent. CDFW does not currently employ a formal definition of watercourses under its jurisdiction. CDFW has jurisdiction over alterations to any channel with a definable bank and bed that is capable of accommodating water flow. Wetlands need not be present to establish CDFW jurisdiction. CDFW jurisdiction generally extends to work conducted within the 100-year floodplain.

3.9.2.2.2 Porter-Cologne Water Quality Control Act

The Porter-Cologne Act (Division 7 of the California Water Code) is the primary state regulation that addresses water quality standards. Under the act, SWRCB has the ultimate authority over water rights

[2] *Cocculus indicus* is prohibited based on the practice of grinding up the roots of certain *Cocculus* plants (most commonly Yucca plants) and spreading them in the water to "stun" fish for collection.

and water quality policy. The act also established nine RWQCBs to oversee water quality on a day-to-day basis at the regional level. The state and regional boards regulate all pollutant or nuisance discharges that may affect either surface water or groundwater. Jurisdictional resources in the project area are expected to be under the jurisdiction of the Central Valley RWQCB. Under oversight by USEPA, SWRCB and RWQCBs have the responsibility for establishing regulatory standards and objectives for water quality, developing TMDLs for impaired waterbodies, and issuing NPDES permits. The Central Valley RWQCB's *Water Quality Control Plan for the Sacramento and San Joaquin River Basins* (Basin Plan; CVRWQCB 2026) establishes water quality standards, beneficial uses, and implementation programs to protect surface and groundwater in California's Central Valley, including the project area. The TMDLs and the Section 303(d) program are integrated into the Basin Plan. The proposed project may require WDRs if waters on site are considered jurisdictional and is expected to require an NPDES permit to regulate construction-related stormwater at project sites.

3.9.2.3 Local

3.9.2.3.1 Port of Stockton Storm Water Development Standards Plan

The Port's DSP (Port 2009) establishes stormwater development standards and review process for Port tenants. The DSP covers new and substantial redevelopments of properties within three subareas to ensure compatibility with the SWRCB-issued MS4 NPDES Permit. The Port's review process under the DSP includes assessment of technical stormwater submittals from project proponents. DSP objectives also include protecting the quality of stormwater runoff and the receiving waters that surround the Port.

3.9.2.3.2 Envision Stockton 2040 General Plan

The City's 2040 General Plan (City 2018) includes policies in the safety element that address public safety, hazards, and emergency response. The following policies in the safety element specific to flood hazards may apply to the proposed project:

- Protect the community from potential flood events (Policy SAF-2.5).
  - Require new public and private waterfront development to be oriented to waterways and provide setbacks and easements along levees and channels to provide space for levee widening, flood fighting, roadway and maintenance access, open space and trail amenities, and appropriate landscaping (Action SAF-2.5C).
- Minimize risks to the community from flooding through appropriate siting and protection of structures and occupants (Policy SAF-2.6).
- Consider the best available flood hazard information and mapping from regional, State, and federal agencies to inform land use and public facilities investment decisions (Action SAF-2.6E).

3.9.3 Environmental Impacts and Mitigation Measures

3.9.3.1 Baseline

At the time of publication of the NOP/IS for the proposed project, Nevada Cement operated a bulk cementitious material receiving and distribution terminal at the Port. The terminal included two vessel berths (Berths 2 and 3/4) and a rail trestle within the San Joaquin River and vessel unloading equipment, cementitious materials storage structures, and rail and truck loading equipment adjacent to the San Joaquin River. The project site was within a highly developed and industrialized area. Nevada Cement implemented active and passive control measures to address potential hazards associated with the accidental release of bulk cementitious materials and other common industrial materials used at the facility into the water.

3.9.3.2 Thresholds

For purposes of this DEIR, the following thresholds, which are based on Appendix G of the CEQA Guidelines (Environmental Checklist), were used to determine whether the proposed project would result in impacts related to hydrology and water quality. The proposed project would have an impact if the following apply:

- **HYD-1:** The project would violate water quality standards or WDRs or otherwise substantially degrade surface or groundwater quality.
- **HYD-2:** The project would substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.
- **HYD-3:** The project would 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 off site; 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.
- **HYD-4:** In flood hazard, tsunami, or seiche zones, the project would risk release of pollutants due to project inundation.
- **HYD-5:** The project would conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

3.9.3.3 Methodology for Determining Impacts

Potential impacts on hydrology and water quality were qualitatively evaluated based on existing hydrological conditions and the current implementation of active and passive control measures by Nevada Cement to protect water resources in the project area. This analysis considered the proposed

project's impact on hydrology and water quality for all project phases and components, during construction and operation, and whether the overall scope of the proposed project would result in potential impacts to water quality, groundwater supplies, drainage patterns, or flood hazards. The analysis is based in part on publicly available flood hazard data from FEMA and local government agencies; hydrology conditions identified in regional and site-specific investigations; Port regulations and approvals pertaining to stormwater systems; and Nevada Cement facility operational programs pertaining to water quality.

3.9.3.4 Impact Analysis

3.9.3.4.1 HYD-1: Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Both upland and in-water work have the potential to result in water quality degradation, including through erosion or inputs of common industrial pollutants to the waterbody. These impacts are commonly addressed through adherence to construction BMPs such as erosion controls, designating appropriate staging and fueling areas, and requiring equipment inspections and maintenance, which are often required through the NPDES or USACE, RWQCB, and CDFW permitting processes.

Construction would require excavation, pile installation, and removal activities. The removal of Transit Shed 4 would include the demolition of all above-deck structures waterside of the retaining wall. The remaining demolition activities would be fully landside of the existing dock structure's retaining wall and would not involve any overwater work conditions.

In-water work would include Berth 3/4 rehabilitations, including pile foundation installation. Installation would occur using a vibratory hammer or a single impact hammer to drive these pilings. Pile driving may temporarily disturb sediments and could contribute minor increases of turbidity and suspended sediment in the immediate vicinity of the proposed project during construction. Turbidity plumes would disperse within hours due to local tidal forces and currents. Pile driving has the potential to release sediment-associated metals and other pollutants by dispersion within the resulting sediment plume. Increases in turbidity and suspended sediment levels related to the proposed construction would be significantly less than similar effects from maintenance dredging that regularly occurs throughout the Port. Water quality monitoring and elutriate toxicity testing results from past Port maintenance dredging sediment characterization efforts have not indicated toxicity concerns (ERS 2012, 2013) for sediments within the project area.

BMPs would be implemented to prevent debris from entering the water during construction, including the use of debris containment booms, floating debris screens, and/or absorbent booms beneath and around work areas; moored barges positioned to capture debris generated during in-water and overwater construction; immediate retrieval of any debris entering the water by

personnel in workboats; and the use of tarps, tubs, or vacuums to catch sawdust, debris, and drips during small-scale overwater work.

Although the proposed project would not substantially alter facility operations or introduce new pollutant sources, throughput of bulk cementitious materials would increase. Cementitious material is caustic and can degrade water quality if released into waters. Facility infrastructure improvements to increase storage capacity and material throughput have been designed to address and avoid potential release of bulk cementitious materials into the environment. This includes the addition of air pollution control devices to many pollution generating project elements, including the new enclosed mechanical handling system, ship unloader, and storage dome, replacing Bunkers 7, and eventually Bunker 6, with larger and modernized storage domes; and modernizing truck and rail loadout material handling systems, including new and negatively vented bucket elevators. All new equipment would be enclosed and operated under negative pressure, utilizing either existing or new dust filtration systems to ensure compliance with air quality standards. The new unloader would be equipped with a completely enclosed conveyance system.

With construction of these design improvements, there remains potential for impacts to water quality from improper management of cement, GGBFS, and common industrial materials (e.g., lubricating oils, cleaners, equipment fuel). This includes potential water quality impacts from accidental spills. The increase in facility throughput may potentially increase the potential for these hazards. Existing conditions include site-specific operational and management plans to address these risks (see Sections 3.6 and 3.8). Under existing conditions, these potential hazards are addressed through the EAP (Nevada Cement 2026a) and the *Consolidated Emergency Response/Contingency Plan* (Nevada Cement 2026b). Annual inventories of potentially hazardous materials are provided via California Environmental Reporting System and Hazardous Materials and Wastes Inventory Matrix Report submittals. Implementation of Mitigation Measures MM-BIO-2: Obtain and Implement NPDES Construction Stormwater General Permit and MM-BIO-3: Conduct In-Water Construction During Established Window would also reduce impacts to water quality during project construction.

The proposed project would increase vessel activity, but the associated hydrologic effects are expected to be minor. Any sediment suspension generated by the additional vessel movements would be localized and temporary, and the level of disturbance would remain consistent with what occurs under current operations. Operational vessel activity associated with the proposed project would not result in substantial degradation of water quality or long-term increases in turbidity. As mentioned above for construction impacts, turbidity and sediment resuspension would be for a short duration before settling out of the water column.

Impact Determination: Proposed infrastructure upgrades for increased throughput have been designed to improve material containment during receipt, storage, and transfer, which would minimize potential water quality impacts. There remains the potential for impacts to water quality

from improper management of potentially hazardous materials during proposed construction and operations, including hazards from cementitious materials and common industrial materials. These would constitute potentially significant impacts.

Mitigation Measures: The following mitigation measures would be implemented to reduce potential impacts:

- **MM-BIO-2: Obtain and Implement NPDES Construction Stormwater General Permit** (see BIO-1 for more information).
- **MM-BIO-5: Compliance with Permitting Requirements for In-Water Work** (see BIO-1 for more information).
- **MM-HAZ-1: Pre-construction Hazardous Materials Survey and Worker Training** (see HAZ-1 for more information).

Residual Impact: Potential construction impacts to water quality associated with project construction would be addressed through implementation of mitigation measures MM-BIO-2, MM-BIO-5, and MM-HAZ-1, which include BMPs such as erosion and spill controls and worker training. With implementation of these mitigation measures, impacts would be reduced to less than significant.

3.9.3.4.2 HYD-2: Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Project improvements would be constructed on existing concrete, asphalt, or compacted earth surfaces with little or no permeability. All stormwater would be treated prior to being discharged off site. Proposed operations would not extract or otherwise use groundwater. Therefore, groundwater supplies or recharge would be unaffected by the proposed project.

Impact Determination: Because the proposed project would not affect groundwater, there would be no impact related to groundwater supplies or recharge.

Mitigation Measures: None required.

Residual Impact: No impact.

3.9.3.4.3 HYD-3: Would the project 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 off site; 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?

The project area encompasses several existing subsurface drainage features—including culverts, manholes, and related infrastructure—within the boundaries of Berth 3/4, Port Road B, and the planned rail yard. Although the original design documentation for these underground systems is incomplete, the installations have been verified through survey data. The legacy drainage infrastructure would be modified and reused where feasible, and it would be integrated with new underground drainage systems to manage stormwater from the rail yard and surrounding paved surfaces.

Approximately two acres of impervious surfaces would be removed and replaced with pervious areas as part of the railyard enhancements, reducing the volume of stormwater runoff entering the existing collection system. Railyard enhancements include the excavation and regrading of the bank located south of the dock structure's retaining wall.

All stormwater generated within the Nevada Cement leasehold would be routed—through either existing or new conveyance systems—into the Port's established stormwater collection network, ultimately discharging via existing permitted outfalls.

The proposed project design would comply with the Port's DSP (Port 2009). Installation of new infrastructure improvements is anticipated to have no appreciable effect on groundwater recharge. The project area is within the dam inundation zone for several dams, and levee systems protect the project site from inundation. There is a low probability for failure of existing dams and levees, and existing inspection and response plans are in place to address these hazards. The proposed project would not exacerbate risks related to flood hazards, and seismic upgrades would minimize the potential for release of pollutants under the proposed project. However, because the proposed project would result in pile-driving in-water and overwater work, it would have the potential to alter water quality conditions.

In-water improvements to Berth 3/4 would not alter the course of the San Joaquin River. Project construction and operation would have no effect on flood risk on or off site. All stormwater generated within the Nevada Cement leasehold, included runoff from the new impervious areas, would be routed—through either existing or new conveyance systems—into the Port's established stormwater

collection network, ultimately discharging via existing permitted outfalls. Because the proposed project would be designed to accommodate the additional runoff from the new impervious surface areas, the proposed project would not substantially increase the rate or amount of surface runoff in a manner which would exacerbate risks related to flood hazards on or off site. Seismic upgrades would also minimize the potential for release of pollutants under the proposed project.

Impact Determination: Proposed grading and drainage improvements would not substantially affect runoff or drainage patterns and would not result in substantial erosion, siltation, flooding, or exceedance of drainage system capacity. However, construction and operational activities could result in runoff containing pollutants if not properly managed, which could affect water quality. Therefore, impacts would be potentially significant.

Mitigation Measures: The following mitigation measure would be implemented to reduce potential impacts:

- **MM-BIO-2: Obtain and Implement NPDES Construction Stormwater General Permit** (see BIO-1 for more information).

Residual Impact: Implementation of mitigation measure MM-BIO-2 would require adherence to NPDES permit requirements and construction BMPs, including erosion and sediment control measures, which would minimize the potential for polluted runoff during construction. With implementation of this mitigation measure, impacts would be reduced to less than significant.

3.9.3.4.4 HYD-4: Would the project, in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

The proposed project is not within a flood hazard, tsunami, or seiche zone. Although the project site is within a dam failure zone, dam failure is unlikely, and all California dams with flood potential above low hazard are required to maintain emergency action plans. The proposed project would have no effect on existing dam failure inundation hazards and would not result in increased exposure to these hazards. The proposed project would have no effect on the potential for tsunamis, seiches, or mudflows on or off site. The likelihood of a seismic-induced landslide or mudflow is very low.

Upland improvement would be constructed outside of any 100-year flood hazard areas, and in-water improvements, including Berth 2 rehabilitation and rail trestle replacement would not impede or redirect flood flows. In-water improvements would be constructed within the same approximate footprint as existing structures, and would result in a nominal increase in fill associated with installation of new piles. New piles would not substantially impede or redirect flows in any way that would affect flooding. As discussed under HYD-3, the proposed project would be designed to accommodate runoff associated with the new impervious surface area.

Impact Determination: Proposed grading and drainage improvements would not substantially affect runoff and would not affect flood risk. Therefore, the proposed project would have a less-than-significant impact related to release of pollutants due to flood risk.

Mitigation Measures: None required.

Residual Impact: Impacts would be less than significant.

3.9.3.4.5 HYD-5: Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

As noted in the preceding responses, the proposed project would have little or no effect on groundwater recharge, and proposed operations would not extract or otherwise use groundwater.

The Stockton DWSC is listed as impaired for several TMDL/Section 303(d) list constituents in the Basin Plan (CVRWQCB 2026), and construction and operation of the proposed project could result in inputs of some of these pollutants to the waterbody. The removal and installation of piles could cause turbidity, although the BMPs described previously for pile removal would minimize this impact. Turbidity could indirectly impact dissolved oxygen and organic matter as sediments are disturbed during construction. As discussed in Section 3.9.3.4.1, increases in turbidity and suspended sediment levels would be significantly less than similar effects from maintenance dredging that regularly occurs throughout the Port and previous water quality monitoring and toxicity testing associated with maintenance dredging activities have not indicated toxicity concerns (ERS 2012, 2013).

During operations, cement dust has the potential to impact water pH, though this should be a negligible impact given the increased dust control technologies combined with the size and dynamics of the river. Facility infrastructure improvements to increase storage capacity and material throughput have been designed to address and avoid potential release of bulk cementitious materials into the environment. These improvements are likely to reduce the risk of water quality impacts, along with the existing and passive water quality control measures that would remain in place.

Impact Determination: The proposed project would have no effect on groundwater. The proposed project may result in water quality impacts to a TMDL/Section 303(d) impaired water during construction or operations, which would constitute a potentially significant impact in terms of conflicting with the standards in the Basin Plan.

Mitigation Measures: The following mitigation measures would be implemented to reduce impacts:

- **MM-BIO-2: Obtain and Implement NPDES Construction Stormwater General Permit** (see BIO-1 for more information).
- **MM-BIO-5: Compliance with Permitting Requirements for In-Water Work** (see BIO-1 for more information).

- **MM-HAZ-1: Pre-construction Hazardous Materials Survey and Worker Training** (see HAZ-1 for more information).

Residual Impact: Potential construction impacts to water quality associated with project construction would be addressed through implementation of mitigation measures MM-BIO-2, MM-BIO-5, and MM-HAZ-1, which include BMPs such as erosion and spill controls and worker training. With implementation of these mitigation measures, impacts would be less than significant.

3.10 Land Use and Planning

This section describes land use and planning conditions in the project area and analyzes how the proposed project may affect those conditions. It also describes applicable rules and regulations pertaining to land use and planning that could affect the proposed project. For the purposes of this analysis, the study area is defined as the project area as shown in Figure 1.

3.10.1 Environmental Setting

This section describes the existing land use and planning setting of the project area, including land use designations, zoning, and surrounding land uses that may be affected by the proposed project.

The existing facility is a port terminal on the San Joaquin River in the City. All of the Port's land is zoned for industrial development and is currently leased for a variety of industrial uses. As such, existing land uses in the project area are industrial and characterized by storage tanks, power production towers, cement and grain silos, railroad tracks, large storage buildings, and stockpiles of various commodities (Port 2020).

The City's 2040 General Plan (City 2018) designates the project site as Industrial, and the zoning classification of the project site and surrounding parcels is PT or IG (City 2024). The IG designation allows for a wide variety of industrial uses, including uses with nuisance or hazardous characteristics, warehousing, construction contractors, light manufacturing, offices, retail sales, service businesses, public and quasi-public uses, and other similar and compatible uses. The maximum floor area ratio (FAR) for industrial uses is 0.6 (City 2018). Residential uses are prohibited; there is no housing within or adjacent to the project site. The closest residential area is located approximately 350 feet to the south.

3.10.2 Applicable Regulations

3.10.2.1 Local

3.10.2.1.1 San Joaquin County Multi-Species Habitat Conservation and Open Space Plan

The proposed project is within the coverage area of the SJMSCP (refer to Section 3.3, Biological Resources), which provides compensation for the conversion of open space to non-open space uses

that affect the plant, fish, and wildlife species covered by the plan. For projects with the potential to adversely affect special-status species or habitats, project proponents may opt into the SJMSCP to obtain take coverage for species covered by the plan. Opting into the SJMSCP typically entails adhering to avoidance and minimization measures during project construction and mitigating for potential species take or loss of habitat (through credit purchase or other means).

3.10.2.1.2 Envision Stockton 2040 General Plan

The City's 2040 General Plan (City 2018) includes goals and policies in the land use element that address land use and planning in the City. The following policies may apply to the proposed project regarding land use:

- Protect, maintain, and restore natural and cultural resources (Goal LU-5).
- Provide for orderly, well-planned, and balanced development (Goal LU-6).
- Carefully plan for future development and proactively mitigate potential impacts (Policy LU-6.1).

3.10.3 Environmental Impacts and Mitigation Measures

3.10.3.1 Baseline

At the time of publication of the NOP/IS for the proposed project, Nevada Cement operated a bulk cementitious material receiving and distribution terminal that is compatible with current zoning, land use designation, and surrounding industrial and port uses.

3.10.3.2 Thresholds

For purposes of this DEIR, the following thresholds, which are based on Appendix G of the CEQA Guidelines (Environmental Checklist), were used to determine whether the proposed project would result in impacts related to land use and planning. The proposed project would have an impact if the following apply:

- **LAN-1:** The project would physically divide an established community.
- **LAN-2:** The project would cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

3.10.3.3 Methodology for Determining Impacts

The land use and planning analysis considers the proposed project's consistency with local plans, policies, and regulations and also discusses the potential for the proposed project to physically divide an established community.

This analysis focuses on environmental plans and policies, consistent with Appendix G of the CEQA Guidelines, which asks whether the project would "conflict with any applicable land use plan, policy, or regulation … *adopted for the purpose of avoiding or mitigating an environmental effect*." (emphasis

added). Even a response in the affirmative, however, does not necessarily indicate that the project would result in a significant impact pursuant to CEQA, unless a physical change would also occur. To qualify as an impact under CEQA, the conflict must result in a direct or indirect physical impact on the environment (as determined by application of the significance criteria in this DEIR for the affected resource). To the extent that physical impacts may result from such conflicts, such physical impacts are typically analyzed elsewhere in this document, with a few exceptions where the discussion of such impacts is provided below in this section as they relate to land use.

Consistent with CEQA, not every policy that could apply to the proposed project is analyzed. The policies analyzed below are those that most directly pertain to the proposed project. To the extent this section discusses potential conflicts with plans, policies, or regulations not adopted for the purpose of mitigating or avoiding an environmental impact, it is for informational purposes only.

3.10.3.4 Impact Analysis

3.10.3.4.1 LAN-1: Would the project physically divide an established community?

The proposed project would redevelop an existing cementitious materials facility and continue similar operational uses to those that are currently occurring at the project site. The project site is entirely within the Port's East Complex and is not within or near an established community. The proposed project would use designated haul routes during construction. Navy Drive and West Washington Street would be the primary haul routes used to avoid the East Gate and through traffic in the Boggs Track neighborhood to the extent practicable (Appendix I, Transportation Study). Construction access impacts would be minor, short-term, and temporary; therefore, there would be no physical division of an established community due to construction. Continuation of the activities already occurring at the facility would not physically divide an established community because they would not result in the loss or increased difficulty of access from one portion of an existing community to another. Therefore, there would be no physical division of established communities due to operation. Temporary access impacts, such as minor traffic delays, may occur during construction within access roads to and from the project site.

Impact Determination: The proposed project would not divide an established community. Construction would occur entirely within the project site, and all equipment would access the facility through existing roadways. Likewise, operations would occur entirely within the project site. Trucks and rail would use existing designated roadways and rail infrastructure. Therefore, impacts related to the division of an established community would be less than significant.

Mitigation Measures: None required.

Residual Impact: Impacts would be less than significant.

3.10.3.4.2 LAN-2: Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

As noted previously, the applicable land use policy is the City's 2040 General Plan (City 2018), and the following policies may apply to the proposed project in regard to land use:

- Protect, maintain, and restore natural and cultural resources (Goal LU-5).
- Provide for orderly, well-planned, and balanced development (Goal LU-6).
- Carefully plan for future development and proactively mitigate potential impacts (Policy LU-6.1).

The proposed project would modernize and upgrade an existing bulk cementitious material receiving and distribution facility operating at an existing marine terminal within the Port. The proposed uses would be consistent with the Industrial land use designation established by the 2040 General Plan and with the site's PT or IG zoning classification. The Industrial designation allows a broad range of industrial uses, including warehousing, light manufacturing, construction-related businesses, and uses with nuisance or hazardous characteristics. The zoning classifications similarly allow industrial and port-related uses.

The maximum FAR for industrial uses is 0.6 and would not be exceeded by the proposed project. The project would continue an existing port-industrial use consistent with the types of uses allowed under the applicable land use designation and zoning classifications and would not require a General Plan amendment or rezoning. Modifications to Berths 3 and 4 would occur within the footprint of the existing dock structure, with no increase in deck area.

As discussed in the applicable resource sections of this DEIR, the proposed project would incorporate mitigation measures, where required, to avoid or reduce potentially significant impacts to natural and cultural resources. The project would modernize an existing industrial facility within a developed port area, and the environmental review conducted for the project, together with implementation of the identified mitigation measures, would be consistent with the General Plan policies supporting protection of natural and cultural resources, orderly development, and proactive mitigation of environmental impacts. Therefore, the proposed project would not conflict with an applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

Impact Determination: The proposed project would not conflict with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, impacts would be less than significant.

Mitigation Measures: None required.

Residual Impact: Impacts would be less than significant.

3.11 Noise

This section describes the existing noise and vibration environment of the proposed project and surrounding area and analyzes how the proposed project may affect these characteristics. This section also describes applicable rules and regulations pertaining to noise and vibration. For the purposes of the noise and vibration analysis, the study area is defined as the project site and the surrounding area extending approximately 350 feet south to the nearest sensitive receptors (residential area).

3.11.1 Environmental Setting

This section describes the existing noise and vibration setting of the project area, including ambient noise levels, vibration sources, and characteristics of the surrounding environment that may be affected by the proposed project.

3.11.1.1 Fundamentals of Sound and Noise

Sound is what we hear and is defined as the energy of a vibrating object transmitted by pressure waves through a medium, such as air or water, to the human ear. Noise is most simply defined as unwanted sound. The difference between sound and noise depends upon the listener and the circumstances. A given noise may be more or less tolerable depending on the duration exposure, as well as the time of day which the noise occurs. For example, the sound of a distant train horn during the day may be considered background noise but could disrupt sleep at night.

Sound is measured in decibels (dB) and accounts for variations such as frequency and amplitude, using a relative scale adjusted to the human range for hearing (referred to as the A-weighted decibel [dBA]). More specifically, the dBA measures sound reflective of how the average human ear responds to sound; the range of human hearing typically ranges from 0 dBA (the threshold of hearing) to about 140 dBA (the threshold for pain). Acceptable noise levels during the day are higher than during the night, and industrial land use in urban areas will have a higher limit than residential land use in rural areas.

Noise can be generated by both mobile (i.e., cars) and stationary (i.e., operational machinery) sources. Mobile sources typically attenuate at a rate of 3.0 to 4.5 dBA per doubling of distance, depending on the ground surface and obstructions between the noise source and the receiver. Hard and flat surfaces, such as concrete or asphalt, typically have an attenuation rate of 3.0 dBA per doubling of distance. Soft surfaces, such as uneven or vegetated terrain, typically have an attenuation rate of 4.5 dBA per doubling of distance. Noise generated by stationary sources typically attenuates at a rate of 6.0 to 7.5 dBA per doubling of distance.

The community noise equivalent level (CNEL) measures the cumulative 24-hour noise exposure, considering not only the variation of the A-weighted noise level but also the duration and the time

of day of the noise. Various state and local agencies have adopted CNEL as the measure of community noise, including the State Department of Aeronautics and the California Commission on Housing and Community Development.

Noise is measured through the use of several measurements, including the following:

- **Equivalent Continuous Sound Level (L_{eq})** is the constant noise level that would result in the same total sound energy being produced over a given period. It is useful for representing a varying sound source over time as a single number.
- **Maximum Sound Level (L_{max})** is the maximum sound level.
- **Statistical Sound Levels (L_n, e.g., L_{min}, L_{90}, L_{50}, L_{10})** is the percentile-exceeded noise level, designated as L_n, and describes the noise level that is met or exceeded by a fluctuating sound level n-percent of a stated time period. For example, the L_{50} is the sound level that is equaled or exceeded for 50% of the time period (equivalent to 30 minutes in an hour) and the L_{10} is the sound level that is equaled or exceeded for 10% of the time period (equivalent to 6 minutes in an hour).
- **Day/Night Average Sound Level (L_{dn} or DNL)** is the average noise level over a 24-hour period. The noise level measurements between the hours of 10 p.m. and 7 a.m. are artificially increased by 10 dB before averaging.

3.11.1.2 Fundamentals of Groundborne Vibration

Groundborne vibration is an oscillatory motion that can be described in terms of displacement, velocity, or acceleration. Each of these measures can be further described in terms of frequency and amplitude. Displacement is the easiest descriptor to understand; it is simply the distance that a vibrating point moves from its static position (i.e., its resting position when the vibration is not present). The velocity describes the instantaneous speed of the movement, and acceleration is the instantaneous rate of change of the speed. Vibrating objects can radiate their energy through the ground upon contact; if the object is large or close enough to an observer, ground vibrations can be perceived. As such, environmental impact analyses typically study vibration as it relates to building damage and human annoyance. However, since ground vibration generated by manmade activities typically attenuates rapidly from the source of vibration, manmade vibration issues are usually confined to short distances, such as 500 feet or less from the source (FHWA 2006a).

Although displacement is fundamentally easier to understand than velocity or acceleration, it is rarely used for describing groundborne vibration because of the following: 1) human response to groundborne vibration correlates more accurately with velocity or acceleration; 2) the effect on buildings and sensitive equipment is more accurately described using velocity or acceleration; and 3) most transducers used in the measurement of groundborne vibration actually measure either velocity or acceleration. For this study, velocity was the fundamental measure used to evaluate the effects of groundborne vibration.

Vibration consists of rapidly fluctuating motions with an average motion of zero. The peak particle velocity (PPV) is defined as the maximum instantaneous positive or negative peak amplitude of the vibration velocity. The accepted unit for measuring PPV in the United States is inches per second.

The Federal Transit Administration (FTA) provides guidance on evaluating the effects of construction-related vibration (FTA 2018) using two criteria: 1) impact due to annoyance; and 2) impact due to building damage. Evaluation of annoyance impact depends on the distance from equipment to receiver, and the source and duration of the vibration generated. Evaluation of building damage depends on the distance from equipment to receiver, the source and duration of the vibration generated, the age and construction of the receptor building, and the building's existing condition.

3.11.1.3 Study Area Setting

Existing noise in the project area can be attributed to various stationary and mobile sources, including ship traffic, tractor-trailer truck traffic, rail activity, and terminal equipment (Port 2020; Illingworth & Rodkin 2026 [included in Appendix H]). Other sources that contribute to the existing noise environment in the general vicinity include recreational boating along the San Joaquin River (reduced during fall and winter months), landscaping activities (e.g., leaf blowing and lawn mowing), and local and regional roadway traffic on nearby local roads and highways (i.e., I-5 and State Routes 4 [SR-4] and 99 [SR-99]). Sources of existing vibration in the project area include industrial operations, including the operation of freight trains. Locomotives and railcars with wheel flats are the sources of the highest vibration levels.

Noise monitoring conducted in January 2020 for the *Lehigh Southwest Stockton Terminal Project Draft EIR* (Port 2020) characterized noise at three representative locations south of the terminal, with noise levels ranging from 57 to 72 dBA L_{eq} during the sampling. Additional noise measurements were collected at representative residential locations surrounding the proposed project area from July 7 through July 9, 2026, with L_{eq} values ranging from 50 to 79 dBA in the daytime and 49 to 73 dBA in the nighttime. Table 29 summarizes the results of both the 2020 and 2026 sampling measurements. Additional information regarding the 2026 monitoring locations, methods, and results is provided in Appendix H.

Table 29
Existing Ambient Noise Measurements in Project Vicinity

Measurement Location	Measurement Period	Decibels					Observations
		L_{min}	L_{90}	L_{eq}	L_{10}	L_{max}	
January 2020 Monitoring							
Location 1: Located on West Main Street and North Ventura Avenue	short-term	56.3	56.7	57.4	57.8	65.4	Closest residence to the Port along Main Street. No auto traffic. Port material handling activity is the most influential noise source (mid-50s dB).
Location 2: Located on South Los Angeles Avenue South of Washington Street	short-term	49	49.9	57.8	59	72.4	Residential uses predominate on streets south of Port Road/Harbor Street. Light auto traffic (no heavy trucks) on Los Angeles Avenue. When no autos pass, Port material handling activity (i.e., conveyor belts, loading equipment) is just audible (low 50s dB).
Location 3: Located along Washington Street, between Del Norte Street and South Los Angeles Avenue	short-term	53.5	54.8	71.5	72.4	87.7	Washington Street is a main access route to the Port. Heavy trucks are the main noise source for the facing residential. Frequent heavy-truck passbys with peak noise of 75 to 85 dB.
July 2026 Monitoring							
ST-1: 1845 West Washington Street	short-term	NA	61	61	65	76	Primarily influenced by traffic on West Washington Street, with background industrial fan noise and occasional aircraft overflights.
ST-2: 1786 West Sonora Street	short-term	NA	54	54	54	69	Primarily influenced by SR-4 traffic, with continuous background industrial fan noise.
ST-3: 2321 West Washington Street	short-term	NA	63	63	67	77	Primarily influenced by traffic on West Washington Street, with background industrial fan noise and occasional aircraft overflights.
ST-4: 2635 West Fremont Street	short-term	NA	56	56	59	75	Primarily influenced by traffic on I-5.
LT-1: Ventura Avenue	long-term	NA	NA	54–61	NA	NA	Primarily influenced by vehicle traffic on Ventura Avenue and nearby Port and industrial activity.
LT-2: Harbor Street/South Fresno Avenue	long-term	NA	NA	49–66	NA	NA	Primarily influenced by traffic on I-5 and SR-4 and background noise from nearby industrial operations.

Measurement Location	Measurement Period	Decibels					Observations
		L_{min}	L_{90}	L_{eq}	L_{10}	L_{max}	
LT-3: West Sonora Street	long-term	NA	NA	56–79	NA	NA	Influenced by traffic on West Washington Street, nearby industrial operations, and intermittent freight-train activity.
LT-4: Field Avenue	long-term	NA	NA	61–69	NA	NA	Dominated by continuous traffic on I-5.

Notes:
Source: Port 2020; Illingworth & Rodkin 2026
Long-term values represent ranges of hourly L_{eq} measurements.
"NA" indicates that the averaging period was not reported in the sampling event. See Appendix H for more information.

Noise-sensitive land uses are generally considered to be land uses in which noise exposure could result in health-related risks to individuals or places where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Other land uses, such as parks, historic sites, cemeteries, and recreation areas, are also considered sensitive to increases in exterior noise levels. Schools, places of worship, hotels, libraries, nursing homes, retirement residences, and other places where low interior noise levels are essential, are also considered noise-sensitive land uses. The nearest sensitive receptors are a residential area approximately 350 feet south of the southern end of the terminal (where truck gates are located),1,300 feet south of where ship operations would occur at Berth 2, and approximately 1,700 feet south of where ship operations would occur at Berth 3/4. The second-nearest sensitive receptor is a residential area approximately 1,000 feet north of where ship operations would occur at Berth 3/4.

3.11.2 Applicable Regulations

3.11.2.1 Federal

OSHA has established acceptable occupational noise exposure levels (29 CFR 1910.95). These regulations state that employees shall not be exposed to occupational noise levels greater than 90 dB without adequate hearing protection. If occupational noise levels exceed 85 dB, the employer must establish a hearing conservation program as described under 29 CFR 1910.95(c–o). For occupational noise exposure levels greater than 90 dB, the daily period of noise exposure must be decreased from 8 hours, as described under 29 CFR 1910.95(b).

The USEPA Office of Noise Abatement and Control was established to coordinate federal noise control activities and issued the Noise Control Act of 1972 (42 USC 4901 et seq.), establishing programs and guidelines to identify and address the effects of noise on public health and welfare

and the environment. USEPA determined in 1981 that subjective issues such as noise would be better addressed at lower levels of government, and responsibilities for regulating noise control policies were transferred to state and local governments in 1982.

FTA has established groundborne vibration damage criteria for use in evaluating vibration impacts associated with construction. The FTA vibration impact criteria are based on maximum overall levels for a single event. The impact criteria for groundborne vibration ranges from 0.12 inch per second PPV for buildings extremely susceptible to vibration damage to 0.5 inch per second PPV for reinforced concrete, steel, or timber (FTA 2018).

3.11.2.2 State

The State of California General Plan Guidelines, published by OPR, provide guidance for the acceptability of projects within areas that are exposed to specific noise levels. For areas zoned for industrial, manufacturing, utilities, and agricultural land uses, the normally acceptable level of community noise exposure is less than 75 CNEL with 70 to 80 CNEL considered conditionally acceptable (OPR 2017). The guidelines also present adjustment factors that may be used to arrive at noise acceptability standards that reflect the noise control goals of the community, the particular community's sensitivity to noise, and the community's assessment of the relative importance of noise pollution.

For the protection of fragile, historic, and residential structures from groundborne vibration, Caltrans recommends a threshold of 0.3 inch per second PPV for normal older residential buildings and 0.08 inch per second PPV for old or historically significant structures. For modern industrial/commercial buildings, this value is 0.4 inch per second PPV (Caltrans 2020a).

3.11.2.3 Local

The City has developed community noise control regulations and standards which are consistent with or exceed the guidelines of the State Office of Noise Control and the standards adopted by the Federal Highway Administration (FHWA), Caltrans, and other government and regulatory agencies (City Municipal Code Title 16, Division 3, Chapter 16.60). State law requires general plans to use the CNEL or L_{dn} to describe the community noise environment (in dBA) and its effects on the population.

Regarding construction, the City prohibits "operating or causing the operation of tools or equipment on private property used in alteration, construction, demolition, drilling, or repair work between the hours of 10:00 p.m. and 7:00 a.m., so that the sound creates a noise disturbance across a residential property line, except for emergency work of public service utilities."

Regarding operations, the City requires new or expanded commercial, industrial, and other land-use-related noise sources adjacent to noise-sensitive land uses to comply with the performance standards in Table 3-7, Part II of the City Municipal Code. At the receiving residential property line,

the applicable limits are 55 dBA L_{eq} and 75 dBA L_{max} during daytime hours and 45 dBA L_{eq} and 65 dBA L_{max} during nighttime hours. The standards are applied at the property line of the receiving land use. As shown in Table 29, the ambient concentrations already exceed these limits.

3.11.2.3.1 Envision Stockton 2040 General Plan

The City's 2040 General Plan (City 2018) establishes goals, policies, and criteria for determining land use compatibility with major noise sources within the community. Specifically, Policy SAF-2.8 protects the community from health hazards and annoyance associated with excessive noise levels.

Policy SAF-2.8 includes the following standards:

- Prohibit new commercial, industrial, or other noise-generating land uses adjacent to existing sensitive noise receptors, such as residential uses, schools, health care facilities, libraries, and churches, if noise levels are expected to exceed 70 dBA CNEL when measured at the property line of the noise-sensitive land use (Action SAF-2.8A).
- Require projects that would locate noise-sensitive land uses where the projected ambient noise level is greater than the "normally acceptable" noise levels listed in Table 5-1 (included below as Table 30) to conduct an acoustical analysis (Action SAF-2.8B). (As noted in Table 5-1 of the 2040 General Plan, if existing noise standards are exceeded, a proposed project shall not incrementally increase noise levels by more than 3 dBA.)
- Require noise produced by commercial uses to not exceed 75 dBA L_{dn}/CNEL at the nearest property line (Action SAF-2.8C).
- Grant exceptions to the noise standards for commercial and industrial uses only if a recorded noise easement is conveyed by the affected property owners (Action SAF-2.8D).
- Require all new habitable structures to be set back from railroad tracks to protect residents from noise, vibration, and safety impacts (Action SAF-2.8E).

Table 30
Maximum Allowable Noise Exposure by Land Use Per City of Stockton 2040 General Plan (L_{dn})

Land Use	Noise Level, L_{dn} (dBA)						
	0–55	56–60	61–65	66–70	71–75	75–80	>81
Residential							
Urban Residential Infill							
Hotels, Motels							
Schools, Libraries, Churches, Hospitals, Extended Care Facility							
Auditoriums, Concert Halls, Amphitheaters							
Sports Arenas, Outdoor Spectator Sports							
Playgrounds, Neighborhood Parks							
Golf Courses, Riding Stables, Water Recreation, Cemeteries							
Office Buildings, Business Commercial and Professional							
Mining, Industrial, Manufacturing, Utilities, Agriculture							

Notes:
Source: City 2018
Normally Acceptable
Conditionally Acceptable
Unacceptable

3.11.3 Environmental Impacts and Mitigation Measures

3.11.3.1 Baseline

At the time of the NOP/IS for the proposed project, the existing terminal was fully operational. As discussed in Section 2.3 the terminal operated below permitted limits. The baseline data for the most recent 12-month period shows the terminal imported 326,712 tons of product and exported 341,003 tons of product. The terminal operated below its permitted capacity of 6,000 tons of cementitious material shipped per day, and 2.628 million tons per year or 18,000 tons per day received via ship or rail. As Table 29 shows, in January 2020 and July 2026, when the existing terminal was fully operational, the surrounding noise L_{max} levels in the project area ranged from 65 to 88 dBA.

3.11.3.2 Thresholds

For purposes of this DEIR, the following thresholds, which are based on Appendix G of the CEQA Guidelines (Environmental Checklist), were used to determine whether the proposed project would

result in impacts related to noise and vibration. The proposed project would have an impact if the following apply:

- **NOI-1:** The project would result in 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.
- **NOI-2:** The project would result in generation of excessive groundborne vibration or groundborne noise levels.
- **NOI-3:** 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 2 miles of a public airport or public use airport, the project would expose people residing or working in the project area to excessive noise levels.

3.11.3.3 Methodology for Determining Impacts

The noise and vibration analysis was performed to determine whether the proposed project would affect existing noise and vibration levels in the vicinity of the project site. Because construction and operational activities occur in different portions of the terminal and involve different noise sources, separate receptor sets were used for the construction and operational analyses.

3.11.3.3.1 Construction

Construction noise was evaluated at three representative residential locations identified during the January 2020 monitoring program for the Lehigh Southwest Stockton Terminal Project Draft EIR (Port 2020). These locations represent the residential areas closest to the terminal and the principal Port truck route:

- **Location 1:** Residential Area located on West Main Street, approximately 350 feet south of the terminal gate, 1,300 feet south of Berth 2, and 1,700 feet south of Berth 3/4
- **Location 2:** Residential Area located on South Los Angeles (South of Washington Street)
- **Location 3:** Residential Area Facing Washington Street (between Del Norte Street and South Los Angeles Avenue)

Construction noise was evaluated using construction equipment reference levels and calculation methods consistent with the FHWA Roadway Construction Noise Model. Construction vibration was evaluated using reference vibration levels from FTA guidance. The construction analysis uses the distances between the center of the proposed construction areas and these representative receptor locations to estimate construction noise. The measured 2020 ambient noise levels are provided in Table 29 for context.

3.11.3.3.2 Operations

Operational noise was evaluated at seven representative residential receptor groups surrounding the project site. These include residences at and near North Ventura Street, West Main Street, and South Ventura Street, south of the terminal, as well as residential areas along West Park Street, Carlton Avenue, and West Fremont Street north of the San Joaquin River. The operational receptor groups were selected based on their proximity and exposure to specific project sources, including rail operations, material-transfer equipment, truck loading, vessel loading and unloading, and project-generated traffic. Consequently, the receptor groups and source-to-receptor distances vary among the operational scenarios.

Existing ambient conditions for the operational analysis were characterized using the long-term and short-term measurements collected in July 2026 and summarized in Table 29. Operational source noise levels were estimated using site-specific equipment measurements, published reference levels, source-to-receptor distance attenuation, and shielding from intervening industrial buildings where applicable. Source-specific noise levels were then combined to estimate the loudest-hour L_{eq} and 24-hour L_{dn}/CNEL under conservative operating conditions. Detailed receptor addresses, distances, monitoring locations, assumptions, and calculations are provided in Appendix H.

3.11.3.4 Impact Analysis

3.11.3.4.1 NOI-1: Would the project result in 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?

The City's noise regulations and standards apply to operations of the proposed project. Specifically, the City's 2040 General Plan (City 2018) regulates industrial uses with L_{dn} of 70 dBA and below as "normally acceptable," and between 71 and 80 dBA as "conditionally acceptable" following the incorporation of noise reduction features. Noise levels above 80 dBA are considered unacceptable. The City's noise ordinance also requires that the maximum sound level generated by industrial land uses, or other permitted noise-generating activities within any industrial zoning district, remain below 80 dBA. The City's 2040 General Plan also notes that a noise level for residential land uses of 60 dBA and below as "normally acceptable" between 61 and 70 dBA as "conditionally acceptable" and above 70 dBA as unacceptable. Previous noise monitoring conducted at nearby residential areas determined that the existing L_{eq} near the project site ranges between 49 to 72 dBA, with higher levels from short-term increases in noise levels 87 dBA or higher. As shown in Table 29, existing ambient standards exceed the City's guidance levels.

Noise attenuates with distance from the source. Noise- and vibration-sensitive land uses are locations where people reside or where the presence of unwanted sound could adversely affect the

use of the land. Residences, schools, hospitals, and senior care facilities would each be considered noise- and vibration-sensitive and may warrant unique measures for protection from intruding noise. The closest sensitive receptor to the project site, a residential area north of Washington Street, is located approximately 350 feet to the south of the property line, or 1,100 feet from the center of the property.

Construction

Construction activities typically require the use of numerous pieces of noise-generating equipment. These activities would temporarily increase ambient noise levels on an intermittent basis. Noise levels would fluctuate depending on the construction phase, equipment type and duration of use, distance between the noise source and receptor, and presence or absence of noise attenuation barriers. Table 31 presents the typical noise level of proposed construction equipment for the proposed project and the reference noise levels that each equipment type would generate.

Table 31
Proposed Project Construction Equipment

Major Equipment	Reference Sound Level at 50 feet (dBA)
All Other Equipment > 5 HP	85
Ballast Tamper	83
Compressor (air)	77.7
Concrete Batch Plant	83
Crane	80.6
Dozer	81.7
Dump Truck	76.5
Excavator	80.7
Front-End Loader	79.1
Generator	80.6
Generator (<25 kilovolt-amperes)	72.8
Grader	85
Impact Pile Driver	101.3
Man Lift	74.7
Paver	77.2
Pickup Truck	75
Pumps	80.9
Roller	80
Slurry Trenching Machine	80.4
Tugboat	87

Major Equipment	Reference Sound Level at 50 feet (dBA)
Vacuum Excavator (Vac-truck)	85.3
Welder/Torch	74

Notes:
When provided in the model, the actual measured L_{max} value was used instead of the reference level.
Marine equipment parameters are from the Port of Los Angeles (Port of Los Angeles 2008), and the ballast tamper parameters are from FTA's Transit Noise and Vibration Impact Assessment Manual (FTA 2018). Both represent conservative operating assumptions.
Source: FHWA 2006b; FTA 2018

Although nearby sensitive receptors may experience temporary increases in construction-related noise, the City does not establish numeric limits for daytime construction noise. Instead, construction noise is regulated through restrictions on allowable hours of operation to limit noise during more sensitive periods. Noise limits for this analysis were assumed to be the maximum volume considered "normally acceptable" in the 2040 General Plan (City 2018) for a residential area for L_{eq} (60 dBA) and the maximum volume permitted by the City at a residential property line in City Municipal Code 16.60, Table 3-7, Part II (75 dBA).

To calculate proposed project construction noise impacts to sensitive receptors in the residential area adjacent to and south of the Port, construction noise levels were estimated using construction noise calculation methods and equipment characteristics consistent with the FHWA Roadway Construction Noise Model (RCNM; FHWA 2006b). This methodology estimates construction noise levels at selected locations around the construction site based on a database of measured equipment noise generation for each equipment type and the application of source-receptor distance acoustical propagation formulas. Construction noise is evaluated as occurring at the center of the site to represent average noise levels generated over the duration of construction across the project site. As a conservative measure, for each construction noise model scenario, it was assumed that all equipment within each phase or subphase would operate continuously on the same day. Shielding was included for the terrain obstructions between the residential receptors and the project site (3 dBA), consistent with RCNM methodology (FHWA 2006b).

As shown in Table 32, the maximum noise would occur during Phase 1 of construction and is attributed to pile driving. The FHWA modeling indicates the L_{max} of combined noise would be 71.5 dBA and the L_{eq} would be 65.8 dBA during pile-driving activities associated with Berth 3/4 construction. The L_{eq} from five subphases would exceed the continuous noise limit at Location 1, but L_{max} would be below the maximum noise limit at all subphases.

As shown in Table 32, noise from pile driving would attenuate farther from the terminal, but would exceed the continuous noise level limit at Location 2 during pile-driving activities. As shown, during all other periods of construction, noise would be under the noise limits for both L_{max} and L_{eq} at Locations 2 and 3. Detailed methodology and results are provided in Appendix H.

Table 32
Construction Daytime Noise Limits and Exceedances, Unmitigated

Phase	Activity	Location 1: 1,100 Feet from Center of Site		Location 2: 1,800 Feet from Center of Site		Location 3: 2,200 Feet from Center of Site	
		L_{max}	L_{eq}	L_{max}	L_{eq}	L_{max}	L_{eq}
1	CC-01 Demolition	55.5	59.1	51.2	54.8	49.4	53.1
	CC-02 Pre-Construction & Site Preparation	55.5	**61.1**	51.2	56.8	49.4	55.1
	CC-03 Berth 3/4 Marine Piling & Dock Upgrade (non-pile-driving activities)	57.2	59.5	52.9	55.3	51.1	53.5
	** During Pile Driving*	*71.5*	***65.7***	*67.2*	***61.4***	*65.4*	*59.7*
	CC-05 Landside Piling / Ground Improvements (non-pile-driving activities)	55.5	***60.1***	51.2	55.8	49.4	54.1
	** During Pile Driving*	*71.5*	***65.8***	*67.2*	***61.5***	*65.4*	*59.8*
	CC-06 Landside Foundations & Paving	55.5	**61.4**	51.2	57.1	49.4	55.3
	CC-07 Structural Mechanical Installation	55.2	59.5	50.9	55.3	49.1	53.5
	CC-08 Utility Connection, Metering & Transformer Installation & Electrical Power & Controls	55.2	58.7	50.9	54.4	49.1	52.7
	CC-10 Unattended Truck Self-Loading Kiosk	55.2	55.2	50.9	50.9	49.1	49.2
	CC-11 Dome Construction (Design Build)	55.2	58.0	50.9	53.8	49.1	52.0
	CC-12 Rail Track Installation (Supply & Installation)	55.5	59.5	51.2	56.6	49.4	53.5
	Ship Unloader Installation	55.2	57.0	50.9	52.8	49.1	51.0
	Startup & Checkout	55.2	56.0	50.9	51.8	49.1	50.0
	Dry Commissioning	55.2	56.0	50.9	51.8	49.1	50.0
	Wet Commissioning	55.2	56.0	50.9	51.8	49.1	50.0
	Float	55.2	59.7	50.9	55.4	49.1	53.6

Phase	Activity	Location 1: 1,100 Feet from Center of Site		Location 2: 1,800 Feet from Center of Site		Location 3: 2,200 Feet from Center of Site	
		L_{max}	L_{eq}	L_{max}	L_{eq}	L_{max}	L_{eq}
2	P.II CC-01 Demo: Bunker 6	55.2	57.9	50.9	53.6	49.1	51.9
	P.II CC-05 Landside Piling or ADP & CC-06 Foundation	55.5	***60.8***	51.2	56.6	49.4	54.8
	P.II CC-07 Structural & Mechanical Installation	55.2	57.7	50.9	53.4	49.1	51.7
	P.II CC-08 Electrical and Instrumentation Installation	55.2	56.6	50.9	52.3	49.1	50.6
	P.II CC-11 Dome 6 Construction (Design, Build, and Erection)	55.2	58.0	50.9	53.8	49.1	52.0
	P.II Checkout	55.2	54.8	50.9	50.5	49.1	48.8
	P.II Dry Commissioning	55.2	54.8	50.9	50.5	49.1	48.8
	P.II Wet Commissioning	55.2	54.8	50.9	50.5	49.1	48.8
	P.II Float	55.2	55.9	50.9	51.6	49.1	49.8

Notes:
The L_{eq} noise limit, 60 dBA, is representative of the maximum volume considered "normally acceptable" in the 2040 General Plan (City 2018) for a residential area.
The L_{max} noise limit, 75 dBA, is representative of the maximum volume permitted by the City at a residential property line in City Municipal Code 16.60, Table 3-7, Part II.
Evening and night noise have not been analyzed because construction would not occur during evening hours (7:00 p.m. to 10:00 p.m.) or nighttime hours (10:00 p.m. to 7:00 a.m.).
Numbers in bold represent a potential exceedance of the noise limits.

Operations

Operational noise sources would include on-site and off-site rail activity, material-transfer and dust-collection equipment, heavy-truck loading, vessel loading and unloading, and project-generated roadway traffic. The nearest residences are approximately 350 feet from the terminal gate and approximately 400 feet from the nearest proposed on-site rail tracks. As noted previously, ship operations would occur 1,300 to 1,700 feet from the closest sensitive receptor, with the bulk of internal terminal operations occurring 900 to 1,000 feet away from the closest sensitive receptors. The proposed terminal could operate 24 hours per day, Monday through Saturday, with occasional Sunday operations. Vessel loading and unloading could occur continuously until the activity is complete.

Table 33 summarizes the predicted operational noise levels. The highest source-specific hourly noise levels would be associated with on-site train operations, which would generate up to approximately 56 dBA L_{eq} at the closest residential receptor. Material transfer, truck loading, and vessel loading and unloading would generate lower hourly noise levels. Off-site rail activity would not cause a measurable increase in ambient noise, whereas project-generated roadway traffic would increase traffic noise by up to 2 dBA L_{dn}/CNEL along the evaluated roadway segments. Detailed source-specific results are provided in Appendix H.

Table 33
Summary of Operational Noise Analysis

Operational Source	Maximum hourly L_{eq} (dBA)	Maximum L_{dn}/CNEL (dBA)	Maximum increase (dBA L_{dn}/CNEL)
On-site rail operations	56	56	1
Off-site rail traffic	NA	NA	0
Material-transfer equipment	46	52/53	0
Heavy-truck loading	48	54/55	0
Vessel unloading	43	49/50	0
Vessel loading	46	52/53	0
Project roadway traffic	NA	NA	2
Combined project operations	57	60	1

Notes:
Values represent the maximum predicted level or increase among the modeled receptors. "NA" indicates that the source was evaluated based on its change in transportation noise rather than a stationary-source hourly level. Some source-specific levels would exceed the City's stationary-source standard; however, the predicted levels would remain below measured nighttime ambient noise levels. Detailed results for each receptor are provided in Appendix H.

Under the combined worst-case operating scenario, project-generated noise would be up to approximately 57 dBA L_{eq} and 60 dBA L_{dn}/CNEL at the nearest residential receptors. The modeled project-only hourly noise levels would exceed the City's 55 dBA L_{eq} daytime standard at several residences and the 45 dBA L_{eq} nighttime standard at additional residences. However, the modeled project-generated hourly noise would remain below the existing ambient hourly noise levels.

Combined operational noise would increase existing noise levels by no more than approximately 1 dBA L_{dn}/CNEL at the modeled residential receptors. This increase would generally not be perceptible and would not constitute a substantial permanent increase in ambient noise. Predicted L_{dn}/CNEL levels would also comply with the City's General Plan standards. Accordingly, although project-only noise levels would exceed certain City stationary-source standards, operational noise would not result in a substantial adverse change in the existing noise environment.

Impact Determination: Construction noise would exceed allowable background levels established in the General Plan, during pile driving and select other construction activities. Project construction would occur only during daytime periods, not during evenings, or nights (and in accordance with local noise guidelines). Although construction would be relatively temporary and would only occur during weekday working hours, this would be considered a substantial temporary increase in ambient noise levels in the vicinity of the proposed project in excess of applicable standards, and this impact is considered significant.

Operational noise would increase ambient noise levels by no more than approximately 1 dBA L_{dn}/CNEL. Although modeled project-only hourly noise would exceed certain City stationary-source standards, project-generated noise would remain below measured daytime and nighttime ambient hourly noise levels, and combined L_{dn}/CNEL levels would comply with the City's General Plan. Operational noise would therefore not result in a substantial permanent increase in ambient noise, and the operational impact would be less than significant.

Mitigation Measures: The following mitigation measures would be implemented during construction to further reduce impacts:

- **MM-NOI-1: Pile Driving Noise Attenuation Measures.** Nevada Cement will implement feasible sound-dampening measures during pile driving activities to reduce noise at nearby sensitive receptors. Measures may include, but are not limited to, the use of quieter pile driving techniques (e.g., pre-drilling, vibratory or sonic pile drivers, and limited use of impact pile driving), installation of wood cushion blocks between the pile and hammer, and/or use of noise attenuation systems such as pile caps, shrouds, or acoustic blankets surrounding the pile driving equipment. Where impact pile driving is required, soft-start techniques shall be implemented (i.e., gradual ramp-up of hammer energy) to provide an initial warning period

and reduce sudden noise onset. Selection of specific measures will consider geotechnical and structural requirements and site constraints.

- **MM-NOI-2: Timing Restrictions.** Nevada Cement will require that the construction contractor limit the timing of pile-driving activity to result in the least possible disturbance. City municipal code allows for construction 7 days per week between the hours of 7:00 a.m. and 10:00 p.m. However, as a mitigation measure, Nevada Cement will limit the times and days of pile-driving activities (i.e., between the hours of 9:00 a.m. and 5:00 p.m. and limit the work to only occur on weekdays). Imposing these additional limits may reduce the potential for disturbance of nearby residences during times of day and/or hours of day when noise-sensitive receptors may have higher sensitivities to impact-type noises.
- **MM-NOI-3: Shielding Requirements**. Nevada Cement will implement temporary noise shielding for stationary and high-noise construction equipment (e.g., generators, compressors, pile drivers, and similar equipment) when located in proximity to noise-sensitive receptors. Measures shall be implemented to the extent necessary to reduce noise levels below the applicable threshold. Shielding will consist of solid barriers (e.g., plywood walls, acoustic panels, or equivalent materials) positioned as close as feasible to the noise source and constructed with sufficient height and mass to interrupt the line of sight between the source and receptors. Where feasible, equipment will be partially or fully enclosed within such shielding.

Residual Impact: Implementation of MM-NOI-1 through MM-NOI-3 would reduce construction-related noise levels through a combination of equipment controls, timing restrictions, and installation of temporary noise shielding. Consistent with the FHWA RCNM User's Guide (FHWA 2006b), temporary shielding for stationary and high-noise equipment (e.g., generators, compressors, pile drivers, and similar equipment)—including pile-driving equipment where feasible—would reduce noise levels by up to approximately 8 dBA, depending on the configuration and proximity to receptors. As a result, noise levels from all construction activities would be reduced to below applicable thresholds, as shown in Table 34.

For pile-driving activities, MM-NOI-1 would further reduce noise at the source through the use of feasible attenuation measures, such as quieter installation methods where feasible, cushion blocks, and noise shrouds or acoustic blankets surrounding the pile-driving equipment. These measures reduce impact noise at the source, although the magnitude of reduction varies depending on equipment type and site-specific conditions and is not explicitly quantified in the RCNM framework. MM-NOI-2 would additionally reduce impacts by limiting pile driving to less noise-sensitive times of day.

With implementation of MM-NOI-1 through MM-NOI-3, including application of shielding and source attenuation measures for pile driving, construction noise levels at nearby sensitive receptors

would be reduced. As shown in Table 34, mitigated noise levels would be below applicable L_{max} and L_{eq} thresholds at nearby sensitive receptors.

Therefore, with mitigation, construction noise impacts would be less than significant. Operational noise impacts would be less than significant without mitigation.

Table 34
Construction Daytime Noise Limits and Exceedances, Mitigated

Phase	Activity	Location 1: 1,100 Feet from Center of Site		Location 2: 1,800 Feet from Center of Site		Location 3: 2,200 Feet from Center of Site	
		L_{max}	L_{eq}	L_{max}	L_{eq}	L_{max}	L_{eq}
1	CC-01 Demolition	47.5	51.1	43.2	46.8	41.4	45.1
	CC-02 Pre-Construction & Site Preparation	47.5	53.1	43.2	48.8	41.4	47.1
	CC-03 Berth 3/4 Marine Piling & Dock Upgrade (non-pile-driving activities)	49.2	51.5	44.9	47.3	43.1	45.5
	** During Pile Driving*	63.5	57.7	59.2	53.4	57.4	51.7
	CC-05 Landside Piling / Ground Improvements (non-pile-driving activities)	47.5	52.1	43.2	47.8	41.4	46.1
	** During Pile Driving*	63.5	57.8	59.2	53.5	57.4	51.8
	CC-06 Landside Foundations & Paving	47.5	53.4	43.2	49.1	41.4	47.3
	CC-07 Structural Mechanical Installation	47.2	51.5	42.9	47.3	41.1	45.5
	CC-08 Utility Connection, Metering & Transformer Installation & Electrical Power & Controls	47.2	50.7	42.9	46.4	41.1	44.7
	CC-10 Unattended Truck Self-Loading Kiosk	47.2	47.2	42.9	42.9	41.1	41.2
	CC-11 Dome Construction (Design Build)	47.2	50.0	42.9	45.8	41.1	44.0
	CC-12 Rail Track Installation (Supply & Installation)	47.5	51.5	43.2	47.2	41.4	45.5
	Ship Unloader Installation	47.2	49.0	42.9	44.8	41.1	43.0
	Startup & Checkout	47.2	48.0	42.9	43.8	41.1	42.0
	Dry Commissioning	47.2	48.0	42.9	43.8	41.1	42.0
	Wet Commissioning	47.2	48.0	42.9	43.8	41.1	42.0
	Float	47.2	51.7	42.9	47.4	41.1	45.6

Phase	Activity	Location 1: 1,100 Feet from Center of Site		Location 2: 1,800 Feet from Center of Site		Location 3: 2,200 Feet from Center of Site	
		L_{max}	L_{eq}	L_{max}	L_{eq}	L_{max}	L_{eq}
2	P.II CC-01 Demo: Bunker 6	47.2	49.9	42.9	45.6	41.1	43.9
	P.II CC-05 Landside Piling or ADP & CC-06 Foundation	47.5	52.8	43.2	48.6	41.4	46.8
	P.II CC-07 Structural & Mechanical Installation	47.2	49.7	42.9	45.4	41.1	43.7
	P.II CC-08 Electrical and Instrumentation Installation	47.2	48.6	42.9	44.3	41.1	42.6
	P.II CC-11 Dome 6 Construction (Design, Build, and Erection)	47.2	50.0	42.9	45.8	41.1	44.0
	P.II Checkout	47.2	46.8	42.9	42.5	41.1	40.8
	P.II Dry Commissioning	47.2	46.8	42.9	42.5	41.1	40.8
	P.II Wet Commissioning	47.2	46.8	42.9	42.5	41.1	40.8
	P.II Float	47.2	47.9	42.9	43.6	41.1	41.8

Notes:
The L_{eq} noise limit of 60 dBA is representative of the maximum volume considered "normally acceptable" in the 2040 General Plan (City 2018) for a residential area.
The L_{max} noise limit of 75 dBA is representative of the maximum volume permitted by the City at a residential property line in City Municipal Code 16.60, Table 3-7, Part II.
Evening and night noise have not been analyzed because construction would not occur during evening hours (7:00 p.m. to 10:00 p.m.) or nighttime hours (10:00 p.m. to 7:00 a.m.).
A shielding reduction of 8 dBA was incorporated for all phases due to MM-NOI-3.

3.11.3.4.2 NOI-2: Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Construction

Unless heavy construction activities are conducted extremely close (within a few feet) to neighboring structures, vibrations from construction activities rarely reach levels that damage structures. Typical vibration levels associated with construction equipment are provided in Table 35.

Table 35
Vibration Source Levels for Construction Equipment

Equipment	PPV at 25 Feet (inches/second)	PPV at 50 Feet (inches/second)	PPV at 300 Feet (inches/second)
Loaded Trucks	0.076	0.027	0.0018
Jackhammer	0.035	0.012	8.4E-04
Small Bulldozer/Backhoe	0.003	0.0011	7.2E-05
Large Bulldozer	0.089	0.031	0.0021
Pile Driver (impact)	0.64	0.23	0.015

Source: FTA 2018

The construction vibration damage criterion for structures that are extremely susceptible to vibration damage is 0.08 inch per second PPV. This is the strictest PPV vibration threshold established by Caltrans (Caltrans 2020a). Construction will occur throughout the project site, though pile driving will only occur near Berth 3/4. The nearest structure to the proposed project non-pile driving construction area would be approximately 50 feet and the typical vibration level from heavy equipment at this distance would be less than 0.031 inch per second. The nearest structure to the proposed pile driving construction area would be greater than 300 feet away and the associated vibration level from pile drivers at this distance would be less than 0.015 inch per second. Therefore, the PPV associated with construction would not exceed the structure damage criteria.

Operations

The proposed project would continue industrial, truck, and rail activities similar to those occurring under existing conditions. The proposed project would not introduce operational equipment expected to generate vibration levels greater than those associated with existing terminal operations. Operational vibration at nearby sensitive receptors would therefore remain generally consistent with existing conditions and would not result in a perceptible increase. Additional information regarding operational vibration is provided in Appendix H.

Impact Determination: Predicted construction vibration would remain below applicable building-damage thresholds. Operational vibration would remain similar to existing conditions and would not result in a perceptible increase at nearby sensitive receptors. Construction and operational vibration impacts would be less than significant.

Mitigation Measures: None required.

Residual Impact: Impacts would be less than significant.

3.11.3.4.3 NOI-3: 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 2 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?

There are no public airports located within 2 miles of the project area. The nearest public airport is the Stockton Municipal Airport, located nearly 5 miles southeast of the project site. The project site is not located in the vicinity of a private airstrip.

Impact Determination: Because of the distance of the project site from the nearest public airport or private airstrip, the proposed project would not expose people residing or working in the project area to excessive noise levels. There would be no impact.

Mitigation Measures: None required.

Residual Impact: No impact.

3.12 Transportation

This section describes the existing transportation resources in the project area surrounding the project site and analyzes how the proposed project may affect transportation. This section also describes applicable rules and regulations pertaining to transportation resources. For the purposes of the transportation analysis, the study area is defined as the project site and the surrounding area, including roadways, railways, and the Stockton DWSC. During construction, trucks would be used to transport construction equipment to and haul construction waste away from the sites. Construction workers and facility personnel would access the project site almost exclusively by personal vehicles. During operation, personal worker vehicles, trucks, and railcars would enter and exit the Nevada Cement terminal. Ships and barges would access the facility via the existing berth. Public transportation, bicycle use, and pedestrian access to the facility is extremely limited.

3.12.1 Environmental Setting

This section describes the existing transportation setting of the project area, including roadway, rail, and maritime transportation systems, as well as transit, bicycle, and pedestrian facilities that may be affected by the proposed project.

3.12.1.1 Regional and Local Roadway Network

The Port is served by a number of regional freeways and highways, namely I-5, SR-4, and SR-99, with local roads serving the terminals and wharves. I-5, Fresno Avenue, Center Street, and El Dorado Street serve the major north-south movements of traffic in the proposed project vicinity, and Washington Street, Navy Drive, and Charter Way serve the east-west flow of traffic in the area (Figure 12). Existing roadways are discussed as follows:

- **I-5** is a major north-south freeway extending through California, Oregon, and Washington. It provides local, regional, and statewide access to the proposed project. In the project area it is a six- to eight-lane freeway with a freeway-to freeway interchange located at the confluence of I-5 and SR-4.
- **SR-4** is a major east-west highway. Immediately west of I-5, SR-4 is also called Charter Way, and is an east-west arterial with two lanes. The roadway has four through lanes. Surrounding land uses are mainly industrial, with some commercial uses at major intersections. The second part of SR-4, known as the Crosstown Freeway, begins at Fresno Avenue, has an interchange with I-5, and continues east. This section of SR-4 is a divided freeway with two to four lanes in each direction, plus auxiliary lanes. Caltrans opened the Crosstown Freeway Extension project in 2016, which extended the Crosstown Freeway west from Fresno Avenue to Navy Drive. The extension is elevated and crosses over Fresno Avenue, creating a grade separation that now prohibits highway traffic from entering the Boggs Tract neighborhood at Fresno Avenue.
- **Navy Drive** is a four-lane facility with a partial interchange, which integrates the SR-4 Crosstown Freeway Extension with a direct route into the Port's West Complex. Navy Drive is four lanes between McCloy Avenue and Tille Lewis Drive and two lanes between Tille Lewis Drive and Charter Way. Navy Drive is classified as a truck route by the City. There are no sidewalks or bicycle facilities on Navy Drive.
- **Harbor Street** is a two-lane east-west collector that provides a direct route into the Port of Stockton East Complex from Washington Street and Fresno Avenue.
- **Fresno Avenue** is a two-lane north-south collector that connects Navy Drive and Harbor Street. Fresno Avenue is classified as a truck route north of SR-4/Charter Way. Between Hazelton Avenue and Charter Way, Fresno Avenue is surrounded by mostly industrial uses. There are very few sidewalks and no bicycle facilities on Fresno Avenue north of Charter Way.
- **Washington Street** is a two-lane east-west arterial between Navy Drive and Weber Avenue intersection. Washington Street was previously the major east-west facility through the Port area and the residential area east of the Port. However, following the opening of the Crosstown Freeway Extension, Washington Street from the railroad tracks west is now a private Port road. There are very few sidewalks and no bicycle facilities on Washington Street.
- **Port of Stockton Expressway** is a two-lane north-south arterial located between McCloy Avenue and SR-4/Charter Way in the Port. There are no sidewalks or bicycle facilities on Port of Stockton Expressway.

- **McCloy Avenue** is a two-lane east-west collector located in the Port. McCloy Avenue begins at Humphreys Street and continues east as Navy Drive in the city. There are no sidewalks or bicycle facilities on McCloy Avenue.

3.12.1.2 Rail Network

California's freight railroad system consists of Class I railroads (BNSF and UP), which transport freight to and from the state over state lines and Class III railroads, referred to as shortline railroads, which provide local rail movements. Both BNSF and UP lines serve the Port. In Northern California, the Martinez Subdivision, Feather River Canyon, and Donner Pass routes serve the ports of Oakland and Stockton and are owned and dispatched by UP but serve BNSF through trackage right agreements. BNSF operates the Stockton Intermodal Facility on the southeast edge of the City and UP operates a major intermodal facility and other terminal operations in Lathrop, California. Several shortline railroads also operate in Stockton (Figures 13 and 14). CCTC, jointly owned by BNSF and UP, operates 52 miles of freight service between Stockton and Lodi and is the shortline operator for the Port. CCTC connections are made with BNSF, UP, and the Stockton Terminal and Eastern Railroads, which run from Stockton to Linden (City 2018). The Port provides its own internal railway system. CCTC provides all switching and local movements within the Port.

3.12.1.3 Maritime Navigation

The Port is served by the Stockton DWSC within the San Joaquin River, which provides access to the Port from the San Francisco Bay. Vessel traffic in the study area includes commercial shipping and recreational vessels, as well as vessels to support periodic maintenance dredging operations. All commercial deep draft vessels calling on the Port pick up a bar pilot at the offshore sea buoy before entering the San Francisco Bay through the Main Ship Channel.

3.12.1.4 Public Transit

Transit in the project area is provided by San Joaquin Regional Transit District, which is the regional transit provider for San Joaquin County and the Stockton Metropolitan Area. Access to the project site is very limited via transit, with the closest transit stops approximately 2 miles away. There are no public transit facilities within the Port.

3.12.1.5 Bicycle and Pedestrian Facilities

Bicycle and pedestrian facilities are extremely limited within the Port. There are no bicycle lanes, and most roads are private with no sidewalks.

Figure 12
Local and Regional Roadways



Figure 13
Local and Regional Railways

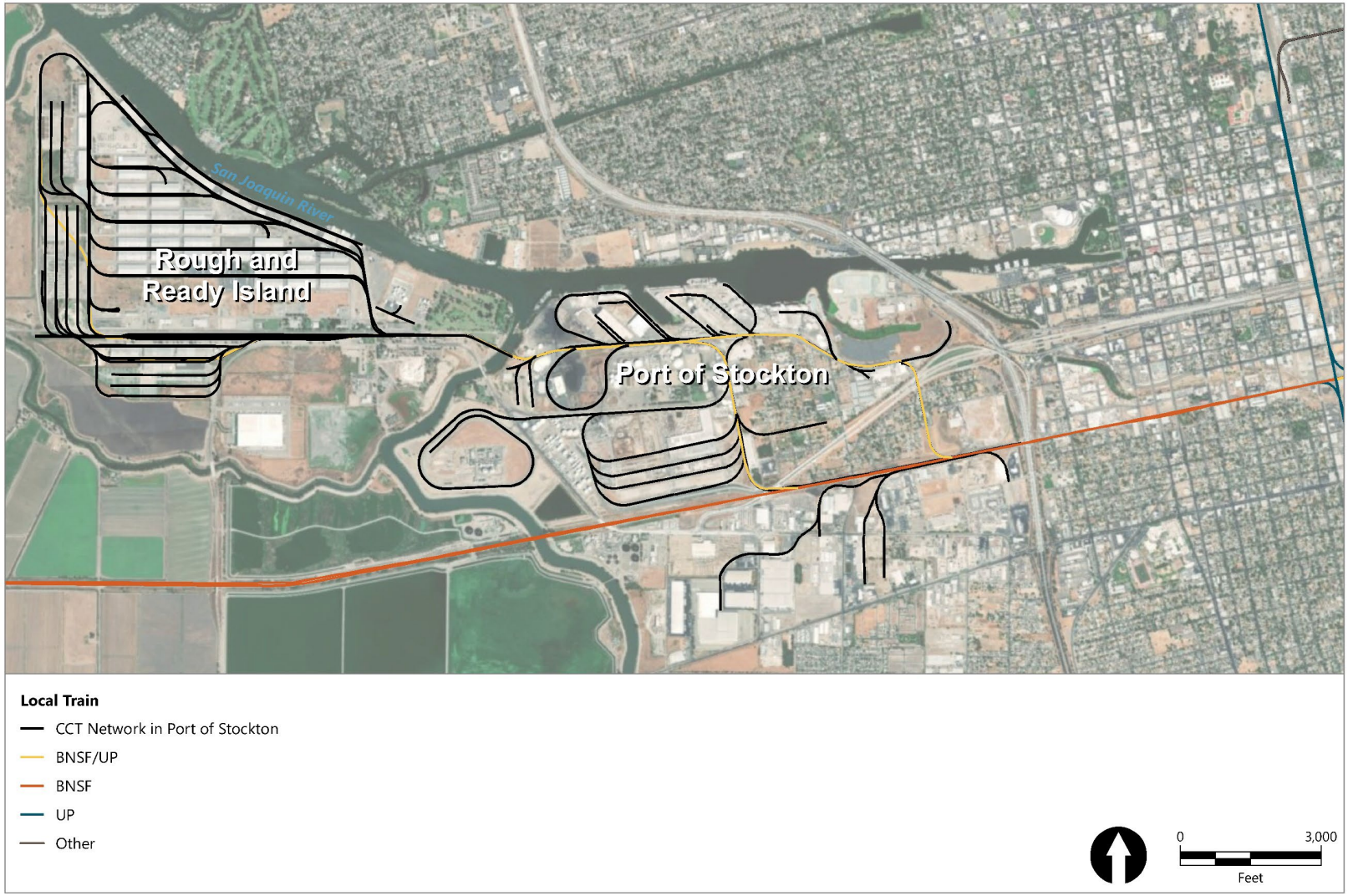
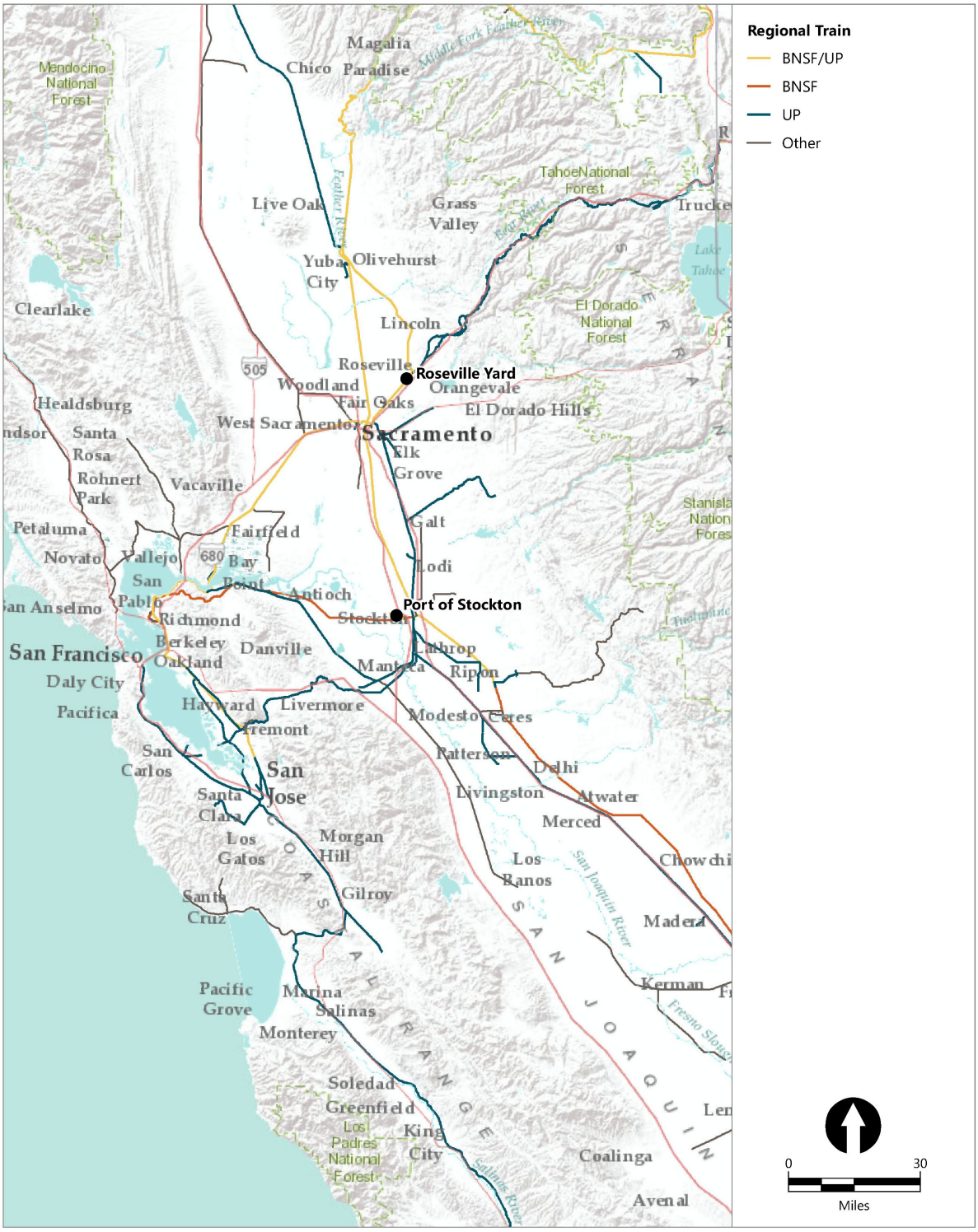


Figure 14
Regional Railways



3.12.2 Applicable Regulations

3.12.2.1 State

3.12.2.1.1 Caltrans

Traffic analyses in the state of California are guided by policies and standards set at the state level by Caltrans and local jurisdictions. Caltrans policies are applicable to the proposed project and are summarized in Caltrans's 2020 *Vehicle Miles Traveled-Focused Transportation Impact Study Guide (*which replaced the 2002 Guide for the Preparation of Traffic Impact Studies) and is for use with local land use projects and provides a summary of goals and policies (Caltrans 2020b). The objectives of this Guide are to provide the following:

- Guidance in determining when a lead agency for a land use project or plan should analyze possible impacts to the State Highway System, including its users.
- An update to the Caltrans 2002 Guide for the Preparation of Traffic Impact Studies that is consistent with SB 743 and the CEQA Guidelines adopted on December 28, 2018.
- Guidance for Caltrans land use review that supports state land use goals, state planning priorities, and GHG emission reduction goals.
- Statewide consistency in identifying land use projects' possible transportation impacts, to the State Highway System, and to identify potential non-capacity increasing mitigation measures.
- Recommendations for early coordination during the planning phase of a land use project to reduce the time, cost, and/or frequency of preparing a Transportation Impact Study or other indicated analysis.

3.12.2.1.2 Senate Bill 743

SB 743, signed by Governor Brown in 2013, is intended to better align congestion management with statewide goals related to infill development, promotion of public health through active transportation, and reduction of GHG emissions. SB 743 has set the stage for moving away from Level of Service (LOS), which measures delay to motorists, to VMT as the metric to evaluate transportation network performance and land use and transportation planning decisions through CEQA. Specifically, SB 743 required OPR to amend the CEQA Guidelines to provide an alternative to LOS for evaluating transportation impacts.

In December 2018, the California Natural Resources Agency certified and adopted the CEQA Guidelines update package, including the CEQA Guidelines Section implementing SB 743. Under the updated CEQA Guidelines, the CEQA analysis must consider the amount and distance of automobile travel attributable to a project. OPR issued a *Technical Advisory on Evaluating Transportation Impacts in CEQA* (OPR Technical Advisory; OPR 2018), which provides general guidance on VMT analyses in the absence of regional guidance and defines automobiles as on-road passenger vehicles, specifically cars and light trucks. Other relevant considerations may include the effects of the proposed project on

transit and non-motorized travel. SB 743 also amended congestion management law to allow cities and counties to opt out of LOS standards within certain infill areas. Transportation impacts related to air quality, noise, and safety must still be analyzed under CEQA where appropriate (PRC 21099[b][3]). Under PRC 21099, automobile delay, as described solely by LOS or similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment (*Citizens for Positive Growth & Preservation v. City of Sacramento*).

3.12.2.1.3 California Public Utilities Commission

CPUC has legal regulatory authority over rail safety within California, including operations and grade crossings throughout the state. However, rail operations under the proposed project would not be subject to approval or modification by CPUC because no grade crossings would be added or modified.

3.12.2.1.4 California Department of Boating and Waterways

The California Harbors and Navigation Code vests authority with the California Department of Boating and Waterways to regulate matters of navigational safety for the state's boating public. The code establishes laws and regulations governing the equipment and operation of vessels on waters of the state, including the project area.

3.12.2.2 Regional and Local

3.12.2.2.1 San Joaquin Council of Governments

SJCOG has developed an RTP/SCS (SJCOG 2022), 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 as to their effect on air quality because the RTP is used in the SIP to ensure states are meeting federal conformity standards. If a project is included in the RTP, its effect on regional conformity goals has been accounted for. The current 2022 RTP was adopted by the SJCOG Board in August 2022. Input from local experts in the RTP/SCS Working Group has been considered and included to reshape existing RTP/SCS policies and supporting strategies. The City is responsible for coordination with SJCOG on RTPs.

3.12.2.2.2 Envision Stockton 2040 General Plan

The City's 2040 General Plan (City 2018) guides the maintenance, design, and operation of transportation, including streets and highways, within the project area. The following goals and policies applicable to the Port and proposed project are provided for transportation:

- Ensure that roadways safely and efficiently accommodate all modes and users, including private, commercial, and transit vehicles, as well as bicycles and pedestrians and vehicles for disabled travelers (Policy TR-1.1).

  - Direct truck traffic to designated truck routes that facilitate efficient goods movement and minimize risk to areas with concentrations of sensitive receptors, such as schools, for example by disallowing any new truck routes to pass directly on streets where schools are located, and vulnerable road users, like pedestrians and bicyclists (Action TR-1.1A).
  - Maintain and periodically update a schedule for synchronizing traffic signals along arterial streets and freeway interchanges to facilitate the safe and efficient movement of people and goods and to provide signal priority for transit vehicles at intersections (Action TR-1.1B).
  - Require roadways in new development areas to be designed with multiple points of access and to address barriers, including waterways and railroads, in order to maximize connectivity for all modes of transportation (Action TR-1.1C).
  - Update existing Precise Road Plans to reflect the 2040 General Plan, including changes in land use and LOS requirements, and a shift in priority from vehicular travel to travel by all modes through complete streets (Action TR-1.1D).
- Enhance the use and convenience of rail service for both passenger and freight movement (Policy TR-1.2).
  - Provide grade separations at railroad crossings on arterial streets where feasible to ensure public safety and minimize traffic delay (Action TR-1.2C).
- Facilitate expanded port and airport operations, service, and development as travel and goods movement assets to the community and sources of employment growth (Policy TR-1.3).

As noted above, SB 743 requires moving from LOS to VMT as the metric to evaluate transportation network performance and land use and transportation planning decisions, with investments oriented toward reducing VMT. The City's 2040 General Plan (City 2018) includes the following policies related to integrating SB 743 into future planning:

- Utilize LOS information to aid understanding of potential major increases to vehicle delay at key signalized intersections (Policy TR-4.1).
  - Strive for LOS D or better for both daily roadway segment and peak-hour intersection operations, except when doing so would conflict with other land use, environmental, or economic development priorities, and with the following additional exceptions:
  - In the Greater Downtown, strive for LOS E or better, but LOS F may be acceptable after consideration of physical or environmental constraints and other City goals and policies.
  - Strive for different LOS standards along the following corridors due to physical constraints that limit the improvements that can be constructed:
    - Benjamin Holt Drive, Plymouth Road to Gettysburg Place – LOS F
    - Eight Mile Road, Trinity Parkway to I-5 – LOS E
    - Eight Mile Road, Lower Sacramento Road to West Lane – LOS E

    - Eighth Street, I-5 to El Dorado Street – LOS E
    - Eighth Street, Airport Way to Mariposa Road –LOS E
    - French Camp Road, Manthey Road to I-5 – LOS E
    - French Camp Road, I-5 to Val Dervin Parkway –LOS F
    - Hammer Lane, I-5 to Kelly Drive – LOS E
    - Hammer Lane, West Lane to Holman Road –LOS E
    - Interstate 5, Hammer Lane to Benjamin Holt Drive – LOS E
    - Interstate 5, Benjamin Holt Drive to Downing Avenue – LOS F
    - Interstate 5, Downing Avenue to French Camp Road – LOS E
    - Otto Drive, I-5 to Thornton Road – LOS F
    - Roadway segments determined to be operating at deficient LOS by the SJCOG in the Regional Congestion Management Program
  - Accept worse than adopted-standard LOS at intersections where widening the intersection would reduce bicycle and pedestrian safety and/or increase pedestrian crossing times such that they would create longer traffic delays due to signal timing (Action TR-4.1A).
  - Amend the City's Transportation Impact Analysis Guidelines to reflect the updated LOS goals under Action TR-4.1.A and to refine the threshold at which a project needs to evaluate LOS impacts (Action TR-4.1B).
- Replace LOS with the following: 1) 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 (Policy TR-4.2).
  - To evaluate the effects of new development and determine mitigation measures and impact fees, require projects to evaluate per capita VMT and impacts to transit, bicycle, and pedestrian modes (Action TR-4.2A).
  - Amend the City's Transportation Impact Analysis Guidelines to include alternative travel metrics and screening criteria (Action TR-4.2B).
- Use the threshold recommended by OPR for determining whether VMT impacts associated with land uses are considered significant under state environmental analysis requirements (Policy TR-4.3).
  - Amend the City's Transportation Impact Analysis Guidelines to the following: 1) establish a threshold of 15% below baseline VMT per capita to determine a significant transportation impact under CEQA; and 2) identify screening criteria that will streamline certain types of development and/or development in certain areas by not requiring a VMT analysis (Action TR-4.3A).

In accordance with Policy TR-4.3A, the City amended its Transportation Impact Analysis (TIA) Guidelines in May 2023 (City 2023). The City requires traffic impact analyses for projects generating

100 or more vehicle trips during the a.m. or p.m. peak hours. LOS is used by transportation planners and engineers as the standard measure for determining traffic congestion on roadways and intersections. Because the project area is within the City's jurisdiction, it is subject to LOS standards used by the City. The City identifies the minimum acceptable operations criteria for roadway segments and signalized intersections to be LOS D. The proposed project would be subject to these guidelines.

3.12.3 Environmental Impacts and Mitigation Measures

3.12.3.1 Baseline

At the time of the NOP/IS for the proposed project, the terminal imported 326,712 tons of product by ship, and exported 341,003 tons of product by truck and rail. Table 36 presents baseline truck, rail, and employee transportation trips.

Table 36
Baseline Volume

Mode	One-Way Trips
Railcars in[1]	0
Trucks out[2]	10,833
Railcars out[1]	520
Rail trips[3]	52
Employees	5

Notes:

1. Rail calls are expressed in one-way moves, assuming 114 tons per railcar for cement and 105 tons for SCMs. This assumes an average of 10 cars per train for each move.
2. This assumes a ship volume of 35,250 short tons per ship.
3. Trucks are expressed in number of trucks with two one-way moves per truck at 26 tons per truck.

3.12.3.2 Thresholds

For purposes of this DEIR, the following thresholds, which are based on Appendix G of the CEQA Guidelines (Environmental Checklist), were used to determine whether the proposed project would result in impacts to transportation resources. The proposed project would have an impact if the following apply:

- **TRA-1:** The project would conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.
- **TRA-2:** The project would conflict or be inconsistent with CEQA Guidelines Section 15064.3(b).
- **TRA-3:** The project would substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- **TRA-4:** The project would result in inadequate emergency access.

3.12.3.3 Methodology for Determining Impacts

As of July 1, 2020, the provisions of SB 743 (implemented through CEQA Guidelines Section 15064.3) became effective statewide. This legislation changed the CEQA requirements for assessing transportation impacts so that delay and congestion are no longer considered environmental impacts. The new metric, VMT, correlates directly with air quality and climate change impacts. VMT impacts require mitigation measures that reduce miles traveled in passenger vehicles per employee or resident populations. CEQA Section 15064.3 defines VMT as the amount and distance of automobile travel attributable to a project. The OPR Technical Advisory defines automobiles as on-road passenger vehicles, specifically cars and light trucks. OPR guidance does not mention freight (commercial trucks). The OPR Technical Advisory does not provide specific guidance for industrial projects but focuses on VMT generated by project employees for commercial land uses. Accordingly, proposed project-generated truck trips do not need to be evaluated for VMT impacts. Note that air quality and climate change impacts associated with the proposed project's commercial truck trips are analyzed in those respective analysis sections of this DEIR.

Although automobile delay is no longer considered an environmental impact under CEQA Guidelines Section 15064.3 or the basis for a finding of significance under Appendix G of the CEQA Guidelines, vehicle levels of service and queueing impacts are still relevant to CEQA impact analyses where a project has the potential to cause safety hazards. In addition, traffic delay is still important to the City, so the City of Stockton TIA Guidelines (last updated in May 2023) retains intersection analysis requirements for projects that generate more than 2,000 daily trips, and this information may also be required for projects that generate 110 to 2,000 daily trips based on a set of variables contained in the City's TIA Guidelines. The proposed project will generate trips that meet the levels requiring analysis. Therefore, the *Nevada Cement Company Terminal Redevelopment Transportation Impact Analysis* (TIA) (Appendix I) was completed for this project and used as the basis of this environmental assessment. The TIA satisfies the requirements documented in the TIA Guidelines, which require the preparation of a CEQA Transportation Study, including VMT assessment, and a Local Transportation Study.

3.12.3.3.1 TIA Guidelines

The City's TIA Guidelines include a list of significance criteria consistent with policies set in the City's 2040 General Plan (City 2018) and *City of Stockton Bicycle Master Plan* (City 2017). Per Stockton TIA Guidelines, a project would create a significant impact if any of the following criteria are met:

- At unsignalized intersections, the project results in any of the traffic signal warrants included in the *California Manual on Uniform Traffic Control Devices* (CA MUTCD; Caltrans 2026) to be satisfied; or for a location where any of the warrants are satisfied prior to the project, the project increases overall travel through the intersection.

- The project creates the potential for 95th percentile vehicle queues that exceed available storage and could periodically block or interfere with pedestrian, bicycle, or transit facilities.
- The project would physically modify an existing or planned roadway in a manner inconsistent with the City's General Plan.
- The project disrupts an existing transit facility or service or interferes with the implementation of future transit service.
- The project would disrupt existing bicycle facilities, interfere with planned bicycle facilities, or cause other changes to the bicycle system that would be inconsistent with performance expectations established in adopted bicycle system plans, guidelines, policies, or standards.
- The project would disrupt existing pedestrian facilities, interfere with planned pedestrian facilities, or cause other changes to the pedestrian system that would be inconsistent with performance expectations established in adopted pedestrian system plans, guidelines, policies, or standards, including Americans with Disabilities Act laws.

To aid local planning, the TIA Guidelines call for an evaluation of the project's consistency with the City's General Plan LOS policy. According to the TIA Guidelines, a deficiency is identified at a signalized intersection if the addition of project traffic causes a signalized intersection to perform at an unacceptable LOS E or F condition during a peak hour or the addition of project traffic exacerbates an existing LOS E or F condition by increasing the delay by 5 or more seconds.

3.12.3.3.2 VMT Assessment

CEQA Guidelines Section 15064.3 requires VMT analysis for land use developments. The Port follows the City's Guidance.

Based on 2018 *Technical Advisory on Evaluating Transportation Impacts in CEQA* from the Governor's Office of Land Use and Climate Innovation (LCI) (formerly OPR), land use projects that meet at least one of the following screening criteria may be presumed to not require CEQA VMT analysis:

- **Transit Priority Area:** The project is located within 0.5 mile of a major transit stop or within a 0.25-mile walkshed around stops on high-quality transit corridor and satisfies the following:
  - It has a FAR of greater than 0.75.
  - The total square footage is 500,000 square feet or less.
  - The proposed parking does not exceed minimum required by the zoning code or applicable plan.
  - The project is consistent with the City's General Plan, applicable Specific Plan, or applicable SCS (as determined by the lead agency).
  - Existing on-site affordable residential units are maintained or increased.
  - Less than significant levels of VMT are projected through project-specific or location specific information.

- **Affordable Housing:** The project is 100% affordable at an infill location and is within 0.5 mile of a transit stop.
- **Small Projects:** The project generates fewer than 110 vehicle trips per day.
- **Locally Serving Public Facility:** The project has government, civic, cultural, health, and infrastructure uses that contribute to and support community needs.
- **Neighborhood-Serving Retail Project:** Projects less than 50,000 square feet without a drive through that serve the immediate neighborhood and may have a similar use within 3 miles.

For projects that do not meet the screening criteria, the Port follows the City's TIA Guidance, which includes its VMT methodology. The City follows the VMT assessment guidance from the 2018 Technical Advisory guidance, which includes the following VMT thresholds for the most common land uses:

- **Residential:** 15% below the city-wide average for home-based VMT per resident
- **Office:** 15% below the city-wide average for home-based-work VMT per employee
- **Retail and Other Land Uses:** To be established on a case-by-case basis, reflecting the City's commitment to achieving VMT reductions while also being sensitive to the characteristics of the project being evaluated; for a retail project, the threshold is no net increase in total VMT

Consistent with the OPR Technical Advisory, the City's TIA Guidelines screen out projects that generate fewer than 110 trips per day and do not require analysis of VMT associated with project-generated commercial truck activity.

3.12.3.4 Project Assumptions

The study area for this assessment includes the area immediately adjacent to the project site, along with roadways that provide primary access to the regional transportation network. The following signalized intersections were selected for evaluation in consultation with Port, City, and San Joaquin County staff:

- Fresno Avenue and Harbor Street
- Fresno Avenue and Washington Street
- Fresno Avenue and Sonora Street

To assess transportation impacts, estimates of project-generated traffic volumes added to the road network were completed using a three-step process:

- **Trip Generation:** Estimates of vehicle trips entering/exiting the site
- **Trip Distribution:** The general direction of project-generated trips (arrivals and departures)
- **Trip Assignment:** Project-generated trips were assigned to specific roadway segments and intersection turning movements based on likely paths of travel from the trip distribution

Construction: Construction activities associated with the proposed project would include demolition, debris removal, and the delivery, hauling, and staging of construction materials and

equipment. Construction-related vehicle trips would consist primarily of heavy-duty truck trips associated with material hauling and passenger vehicle trips generated by construction workers. Project construction is anticipated to occur in two phases: Phase I from 2026 through 2028 and Phase II from 2030 through 2031. Phase I would represent the period of greatest construction activity and is estimated to generate approximately 45 truck trips per day and employ an average construction workforce of 68 workers. Phase II is estimated to generate approximately 20 truck trips per day and employ an average workforce of 30 workers.

Operations: Under Opening Year (2031) conditions, the project is expected to generate 119 daily trips, 9 of which would occur during the a.m. peak-hour trips and 11 of which would occur during the p.m. peak-hour trips (Table 37). Trucks make up roughly 75% of the daily trips, 65% of the a.m. peak-hour trips, and 55% of the p.m. peak-hour trips.

Table 37
Trip Generation – Opening Year (2031)

Trip Type	Quantity	Unit	Calls/Trip Rate		Trip Generation						
						a.m. Peak Hour			p.m. Peak Hour		
			Annual	Daily	Daily	In	Out	Total	In	Out	Total
Trucks	144,346	Tons	5,552	22	44	1	2	3	2	1	3
Terminal Workers	5	Employees	NA	NA	31	2	1	3	1	4	5
Total Vehicle Trips					**75**	**3**	**3**	**6**	**3**	**5**	**8**
PCEs					**119**	**4**	**5**	**9**	**5**	**6**	**11**

Under cumulative (2045) conditions, the project is expected to generate 422 daily trips, 34 of which would occur during the a.m. peak-hour trips and 31 of which would occur during the p.m. peak-hour (Table 38). Trucks make up roughly 80% of the daily trips, 65% of the a.m. peak-hour trips, and 60% of the p.m. peak-hour trips.

Table 38
Trip Generation – Cumulative Year (2045)

Trip Type	Quantity	Unit	Calls/Trip Rate		Trip Generation						
						a.m. Peak Hour			p.m. Peak Hour		
			Annual	Daily	Daily	In	Out	Total	In	Out	Total
Trucks	144,346	Tons	21,667	84	168	5	6	11	5	4	21,667
Terminal Workers	5	Employees	NA	NA	86	10	2	12	4	9	NA
Total Vehicle Trips					**254**	**15**	**8**	**23**	**9**	**13**	**22**
PCEs					**422**	**20**	**14**	**34**	**14**	**17**	**31**

Using the trip distribution percentages, project trips were then assigned to the roadway network shown in Figure 15. As shown, trucks would enter the facility at the truck gates at Port Road A/Harbor Street and would travel from the terminal to Navy Drive via Fresno Avenue. Most trucks (90%) would travel east on Navy Drive to connect to the Crosstown Freeway Extension (SR-4) to access the freeway system. A smaller number of trucks (10%) may continue traveling east on Harbor Street to West Webster or (10%) continue traveling south on Fresno Avenue to connect to West Charter Way. Operations at the terminal generally see approximately 80% of the daily truck calls within the first 5 shipping hours of the day (5 a.m. to 10 a.m.), with the balance of truck calls spread throughout the day.

Figure 15
Project Trips by Roadway



Source: Fehr & Peers (2026) (included as Appendix I)

Truck travel is a mixture of local deliveries (within 10 miles) and regional deliveries (80 miles). Operations at the terminal generally see approximately 80% of the daily truck calls within the first 5 shipping hours of the day (5:00 a.m. to 10:00 a.m.), with the balance of truck calls spread throughout the day. The average truck trip is 30 miles under existing operations and would grow to 40 miles as a result of the proposed project because deliveries to the Bay Area would be expected to increase. Rail deliveries would be made by manifest cars. The Roseville yard would be the collection and staging point for manifest trains to and from the Port. Currently, the terminal receives an average of five cars per train. When the rail loadout upgrade is complete, the terminal would be able to receive up to thirty cars per train. Vessels origins are international, with one ship able to berth at a time per berth. Barges may be used to transport product to the Bay Area in future years.

3.12.3.5 Impact Analysis

3.12.3.5.1 TRA-1: Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

The proposed project is located in the Port, and access to the project site is very limited via transit, with the closest transit stops being located 0.25 mile away from the Nevada Cement site. The proposed project does not disrupt an existing transit facility or service and would not interfere with the implementation of future transit service. There are very few pedestrian and bicycle facilities within the Port for safety and security reasons. The project site does not propose any pedestrian or bicycle facilities or new sidewalks. Therefore, there is no conflict with any roadway, bicycle, and pedestrian plans.

As discussed previously, although the automobile delay is no longer considered an environmental impact per the 2019 CEQA guidance, vehicle levels and queueing impacts are still relevant to CEQA impact analyses where a project has the potential to cause safety hazards or localized traffic delays requiring new signaling or infrastructure upgrades. The City's TIA Guidelines state that for projects that generate between 110 and 2,000 daily vehicle trips, the transportation study should include site plan review; site access assessment for all travel modes; and intersection evaluation, including vehicle LOS, vehicle queues, and signal warrants as well as a collision assessment

Peak morning periods in the City are 7:00 a.m. to 9:00 a.m., and the peak afternoon periods are 4:00 p.m. to 6:00 p.m. Consistent with the City's TIA Guidance, trip generation rates were determined to estimate the amount of vehicular traffic a project will add to the surrounding roadway system during construction and operations.

Construction

During peak construction activity, the Project is estimated to generate approximately 259 one-way vehicle trips per day, consisting of approximately 90 truck trips and 169 worker vehicle trips. When accounting for passenger car equivalent (PCE) factors for heavy-duty trucks, construction activity under the Background Year (2031) scenario is estimated to generate approximately 339 daily PCE trips, including 86 PCE trips during both the AM and PM peak hours (Appendix I).

Under Background Year (2031) Without Project conditions, all study intersections are projected to operate at LOS B or better during the AM and PM peak hours. With the addition of Project construction traffic, all study intersections would continue to operate at LOS B or better during both peak hours, with the exception of the Fresno Avenue/Sonora Street intersection (Intersection 3). At this intersection, average vehicle delay during the AM peak hour would increase by approximately 1.6 seconds per vehicle, resulting in a change from LOS B to LOS C. This relatively minor increase in delays and would not substantially affect intersection operations.

Project construction would also have minimal effects on vehicle queueing. Construction-generated traffic would not increase the modeled 95th-percentile queue lengths at the study intersections, except for the northbound approach at Fresno Avenue/Washington Street (Intersection 2), where the 95th-percentile queue would increase from approximately 25 feet to 50 feet. This increase is equivalent to approximately one additional passenger vehicle and would not substantially interfere with intersection operations or result in queue spillback that would affect adjacent intersections or access points.

Overall, Project construction would result in a temporary increase in truck and passenger vehicle traffic on roadways serving the Port. However, the affected roadway network would continue to operate at acceptable conditions, with only minor changes in intersection delay and queueing. Construction traffic would therefore not substantially interfere with circulation or roadway operations**.**

Operations: Estimates of new annual, daily, and peak-hour proposed project vehicle trip generation were developed using a standard net vehicle trip generation table based on the *Trip Generation Manual*, 12th Edition (ITE 2021) and presented in Tables 37 and 38. Trip generation considers the movement of traffic associated with the proposed project at the maximum year and background traffic data. Estimates of weekday morning and evening peak-hour trip generation were developed to coincide with the time periods when adjacent street traffic demands are greatest and when the proposed project generates the most traffic.

The City's TIA Guidelines require a TIA to include site plan review; site access assessment for all travel modes; and intersection evaluation, including vehicle LOS, vehicle queues, and signal warrants and safety assessment for projects between 110 and 2,000 daily trips. As shown in Table 38 under

cumulative (2045) conditions, the project is expected to generate 422 daily trips. Therefore, a TIA was completed for the project (Appendix I).

Background (2031) and cumulative year (2045) intersections were evaluated using the HCM methodology. Peak-hour factors and heavy vehicle percentages were left unchanged from existing conditions. There are no planned roadway improvements within the study area. Traffic signal timings were left unchanged from existing conditions. As detailed in Appendix I, under Background Year Without Project (2031) conditions, all study intersections operate at LOS B or better during a.m. and p.m. peak hours. Under Background Year with Project (2031) conditions, all study intersections continue to operate at LOS B or better during a.m. and p.m. peak hours, with no project-induced changes LOS levels. Under Cumulative Year Without Project (2045) conditions, all study intersections operate at LOS C or better during a.m. and p.m. peak hours. Under Cumulative Year with Project (2045) conditions, all study intersections continue to operate at LOS C or better during a.m. and p.m. peak hours. All movements operate under the available storage capacity, and project trips do not add any additional queueing length under all future scenarios. Therefore, volumes under both Background Year with Project (2031) and Cumulative Year with Project (2045) are insufficient to satisfy traffic signal warrants included in the CA MUTCD for the two unsignalized intersections included in the study (Caltrans 2026). Furthermore, proposed project trip volumes are low enough to not generate vehicle queues exceeding available storage length. Therefore, in accordance with the City's TIA Guidelines, the proposed project's impact to roadway system is less than significant.

Impact Determination: As described above, project-generated traffic volumes would be low and would not result in the need for new traffic signals or cause existing unsignalized intersections to meet CA MUTCD signal warrant criteria (Caltrans 2026). The proposed project would not result in vehicle queues that exceed available storage or interfere with adjacent facilities. In addition, the proposed project would not modify roadway configurations in a manner inconsistent with the City's General Plan. The project site is located within an industrial Port area with limited access to transit and no existing or planned bicycle or pedestrian facilities within the study area. Accordingly, the proposed project would not disrupt transit service or interfere with existing or planned bicycle or pedestrian facilities. Therefore, the proposed project would not interfere with any applicable program, plan, policy, or ordinance addressing the circulation system and impacts related to transportation, and circulation would be less than significant.

Mitigation Measures: None required.

Residual Impact: Impacts would be less than significant.

3.12.3.5.2 TRA-2: Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3 (b)?

Per the 2018 guidance, land use projects that meet at least one of the following screening criteria (bold) may be presumed to not require CEQA VMT analysis. As described below, the proposed project does not satisfy any of the screening criteria:

- **Criterion 1: Small Project:** A small project is defined as less than 100 vehicle trips per day. The proposed project would generate approximately 422 vehicle trips per day. Therefore, the proposed project does not meet the condition necessary to satisfy Criterion 1.
- **Criterion 2: Low-VMT Area:** The proposed project is located in an area that would exhibit higher VMT than the city-wide average, as shown in the screening map provided in the City of Stockton TIA Guidelines. As discussed below, the proposed project does not meet the conditions (15% below the regional average) necessary to satisfy Criterion 2.
- **Criterion 3: Transit Priority Area:** A transit priority area is a 0.5-mile radius around an area served by a rail station, ferry terminal served by bus or rail, or intersection of two or more major bus routes with ≤20-minute peak-period headways. Although the nearest transit stop to the project site is approximately 0.5 mile away, it is only served by one bus route (Route 515) at roughly 35-minute increments. Therefore, the proposed project does not meet the conditions necessary to satisfy Criterion 3.
- **Criterion 4: Affordable Housing:** The proposed project is an industrial development and would not provide any affordable residential housing. The proposed project does not meet the conditions (100% affordable residential development in an infill location) necessary to satisfy Criterion 4.
- **Criteria 5 and 6: Locally Serving Public Facility and Neighborhood-Serving Retail Project:** The proposed project is an industrial redevelopment project. The proposed project does not meet the land use conditions (public facility or retail) necessary to satisfy Criteria 5 and 6.

Projects not screened out are required to complete a VMT analysis using the City of Stockton General Plan Model to determine whether there would be a significant VMT impact. Per LCI recommendations and their interpretation of CEQA Guidelines Section 15064.3, VMT analysis for CEQA transportation impact purposes can focus solely on automobile travel and can exclude truck trips. Truck trips are included in the analysis of other environmental topic areas, such as air quality, noise, and GHG. The same VMT threshold established for office land uses applies to industrial projects: 15% below the city-wide average for home-based-work VMT per employee.

Proposed Project-Generated VMT: The VMT analysis was completed for the Baseline Year (2025) and Cumulative Year (2045) using the City of Stockton General Plan Model (see Appendix I). The home-based-work VMT per employee threshold was determined under No Project conditions. The

proposed project was then added to the model to evaluate Plus Project conditions. The impact analysis includes two types of VMT: proposed project-generated VMT and proposed project effect on VMT.

The proposed project-generated VMT method relies on tracking trips to/from an individual project. In simple terms, it looks at the total number and distance each trip travels divided by the population that generated those trips (residents, employees, students, visitors, etc. as appropriate).

As presented in Table 39, the Baseline Year Project-generated home-based-work VMT per employee (19.90) is 4.1% higher than the city-wide average (19.11) and does not meet the threshold of 15% below the city-wide average (16.25). The Cumulative Year Project-generated home-based-work VMT per employee (21.56) is 8.3% higher than the city-wide average (19.90) and does not meet the threshold of 15% below the city-wide average (16.91).

Table 39
Proposed Project-Generated VMT

Scenario	Home-Based-Work VMT per Employee			15% Below City Average?
	City-Wide Average	15% Below City-Wide Average	Project	
Baseline Year (2025)	19.11	16.25	19.90	No
Cumulative Year (2045)	19.90	16.91	21.56	No

Proposed Project Effect on VMT: The proposed project effect on VMT compares how the proposed project changes total VMT on the transportation network. This VMT applies what is known as the boundary method, which captures all VMT on a network within a defined boundary (i.e., Stockton/Model Area). This VMT captures the proposed project's overall influence on the VMT generation of surrounding land uses.

As presented Table 40, the Baseline Year and Cumulative Year City-Wide VMT with the proposed project (Plus Project) are lower than the city-wide VMT without the proposed project (No Project).

Table 40
Proposed Project Effect on VMT

Scenario	City-Wide VMT		
	No Project	Plus Project	Difference
Baseline Year (2025)	5,476,643	5,475,404	-1,239
Cumulative Year (2045)	6,596,509	6,593,855	-2,654

Based upon the two methods of VMT results, the proposed project is anticipated to generate more home-based work trips when compared to the city-wide average. The decrease in boundary VMT shows the City's existing industrial employment opportunities are limited, resulting in some residents commuting outside the city for work. By increasing industrial employment within the City, the proposed project would improve the jobs–housing balance and shift a portion of commute travel from external to internal trips for industrial workers.

Impact Determination: The proposed project does not satisfy any of the screening criteria and a VMT analysis was required. The project would require a 22.5% reduction in VMT to meet the threshold of 15% below the city-wide average. The VMT analysis found that the proposed project-generated home-based-work VMT per employee is 4.1% higher than the respective city-wide average in the Baseline Year and 8.3% higher than the respective city-wide average in the Cumulative Year. Therefore, the proposed project would not meet the threshold of 15% below the city-wide average and impacts would be considered significant.

Mitigation Measures: The following mitigation measure would be implemented to reduce potential impacts:

- **MM-TRA-1: Transportation Demand Management Plan Implementation.** The applicant shall implement a Transportation Demand Management (TDM) Plan that includes the following components: Implementation of a commute trip reduction program that could include a carpooling/ride-matching program and/or preferential carpool parking for terminal employees and contractors. The plan will be prepared in consultation with a qualified traffic engineer and approved by the Port prior to implementation. The TDM Plan shall include an ongoing obligation to update the plan to achieve greater reductions as new TDM measures become available.

Residual Impact: Although the implementation of a TDM Plan would reduce the proposed project VMT, reduction of project VMT to 15% below the city-wide average is ambitious, and additional measures are limited based on the project location and nature. Port security regulations and protocols discourage public transportation traversing through the Port, and local transit services are largely inoperative at night, which limits the ability of shift workers to use public transit. The area transit system is served by one bus route (Route 515), with the closest stop at the intersection of Fresno Avenue and Sonora Street. Depending on the employee's origin, taking public transit may add significant time to their commute. The TDM Plan instead focuses on carpooling that would link workers with similar origins and destinations to reduce VMT while not adding significant travel times to workers' commutes. Implementing the described TDM Plan is a sufficient and feasible mitigation measure that ensures that appropriate planning and development for public transit near the project site is conducted and encourages measures that are more likely to be adopted by workers. However,

it is unlikely that the mitigation measure would reduce VMT to 15% below the city-wide average, and the proposed project's impact would remain significant and unavoidable.

3.12.3.5.3 TRA-3: Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The proposed project would occur entirely within the Port of Stockton East Complex and would not alter roadways providing access to and from the Port. Vehicular access via the Port's East Complex Gate is provided by Harbor Street, Fresno Avenue and Navy Drive. During operation, personal worker vehicles, trucks, and railcars would enter and exit the Nevada Cement terminal through the main gate. Ships and barges would access the facility via existing berths. Trucks would continue to use Harbor Street, Washington Street, South Fresno Avenue, and Navy Drive to access the project site from the highway system—all designated truck routes that were built to accommodate heavy vehicles. Additional truck traffic generated by the proposed project would continue to be limited to designated truck routes.

Impact Determination: The proposed project does not propose any substandard design features, therefore the proposed project's impact to geometric design hazards is less than significant.

Mitigation Measures: None required.

Residual Impact: Impacts would be less than significant.

3.12.3.5.4 TRA-4: Would the project result in inadequate emergency access?

Factors such as the number of access points, roadway width, and proximity to fire stations determine whether a project provides enough emergency access. Emergency vehicle access is provided by the terminal's main entrance and the Port's internal roadways. Primary vehicular access to the Nevada Cement terminal is provided at the Port of Stockton East Complex Gate along Harbor Street and will be used during both construction and operation. Harbor Street connects to both Washington Street and Fresno Avenue, offering alternative routes if one access point is blocked. The Port has an emergency response plan in place and maintains its own Police Department, which provides 24-hour security for Port tenants. The nearest fire station is approximately 1.5 miles south at 1818 S. Fresno Avenue, with two additional stations located roughly 2 miles east (110 West Sonora Street) and 4 miles northeast (1501 Picardy Drive).

Impact Determination: Given the multiple access routes, on-site emergency planning, and proximity to fire and police services, transportation associated with construction and operation would not result in inadequate emergency access. The proposed project's impact to emergency access would be less than significant.

Mitigation Measures: None required.

Residual Impact: Impacts would be less than significant.

3.13 Tribal Cultural Resources

This section details the existing Tribal cultural resources within the study area and the relevant federal, state, and local regulations and policies. The information presented in this section is largely based on Tribal consultation to date, as well as information from the cultural resources evaluation in Section 3.4.

Tribal cultural resources are defined in PRC 21074 as follows:

- 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 listed or eligible for listing in the CRHR, or in a local register of historical resources as defined in PRC 5020.1(k)
- A resource determined by the lead agency to be significant pursuant to criteria set forth in PRC 5024.1, after considering the significance of the resource to a California Native American Tribe

For the purposes of this analysis, the study area is defined as the project site (the Nevada Cement terminal and Berth 2).

3.13.1 Environmental Setting

This section describes the existing Tribal cultural resources setting of the project area, including known and potential Tribal cultural resources and the results of Tribal consultation efforts that may inform identification of resources affected by the proposed project.

As noted in Section 3.4.1, the project area is in the traditional territory of the Yokuts Tribe and may also have been used or settled by Plains Miwok and Wintun peoples. Two Native American Tribes have requested to be contacted regarding projects at the Port: the Buena Vista Rancheria of Miwok Indians and the Wilton Rancheria. Under AB 52, NAHC must also be consulted.

The Port provided the NOP/IS to NAHC in 2024, also requesting a search of the Sacred Lands File (SLF). NAHC replied in 2024 acknowledging receipt of the NOP/IS, describing the AB 52 process, and providing the results of the SLF records search. The Port sent letters notifying the North Valley Yokuts Tribe, Amah Mutsun Tribal Band, Buena Vista Rancheria of Miwok Indians, The Confederated Villages of Lisjan Nation, the Muwekma Ohlone Indian Tribe of the San Francisco Bay Area, the Wuksache Indian Tribe, and the Wilton Rancheria of the proposed project in 2024. The Muwekma Ohlone Tribe expressed interest in the project and indicated that it offers consultation and related

cultural resources services, including consultation under Section 106, CEQA, AB 52, SB 18, and PRC Section 21080.3.1, as well as monitoring and burial recovery services, if needed. The Confederated Villages of Lisjan Nation replied requesting an EIR and results of records searches.

3.13.2 Applicable Regulations

3.13.2.1 State

3.13.2.1.1 Assembly Bill 52

AB 52, enacted in 2016, establishes a formal role for California Native American Tribes in the CEQA process and promotes the involvement of California Native American Tribes in the decision-making process when it comes to identifying and developing mitigation for impacts to resources of importance to their culture. AB 52 requires consideration of Tribal cultural resources, which are defined as a property, landscape, or object which is of cultural value to a Tribe and is eligible for the CRHR or a local historic register (or is determined by the lead agency to be a Tribal cultural resource after considering the significance of the resource to a California Native American Tribe). Under the updated guidelines, Tribes requesting consultation under AB 52 must be notified of a project when it is initiated, and can request consultation within 30 days, after which the lead agency must begin consultation within 30 days of the request.

3.13.2.2 Local

3.13.2.2.1 Envision Stockton 2040 General Plan

Many local policies apply to both cultural resources and Tribal cultural resources. In instances where there is overlap, policies applicable to cultural resources may be reiterated. The following policies in the land use element of the City's 2040 General Plan (City 2018) are specific to Tribal cultural resources and may be applicable to the proposed project:

- Continue to consult with Native American representatives, including through early coordination, to identify locations of importance to Native Americans, including archaeological sites and traditional cultural properties (Action LU-5.2E).
- If development could affect a Tribal cultural resource, require the developer to contact an appropriate Tribal representative to train construction workers on appropriate avoidance and minimization measures, requirements for confidentiality and culturally appropriate treatment, other applicable regulations, and consequences of violating State laws and regulations (Action LU-5.2F).
- Comply with appropriate State and federal standards to evaluate and mitigate impacts to cultural resources, including Tribal, historic, archaeological, and paleontological resources (Action LU-5.2G).

3.13.3 Environmental Impacts and Mitigation Measures

3.13.3.1 Baseline

At the time of the NOP/IS for the proposed project, the existing Nevada Cement terminal was fully operational as described in Section 2.3. The terminal operated below its permitted capacity of up to 2.628 million tons of cementitious materials received per year via ship or rail and a combined permitted truck and rail shipping capacity of 6,000 tons of cementitious material per day.

3.13.3.2 Thresholds

For purposes of this DEIR, the following thresholds, which are based on Appendix G of the CEQA Guidelines (Environmental Checklist), were used to determine whether the proposed project would result in impacts on Tribal cultural resources. The proposed project would have an impact on Tribal cultural resources if the following applies:

- **TRI-1:** The project would cause a substantial adverse change in the significance of a Tribal cultural resource, defined in PRC 21074 as 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 meets the following criteria:
  - Is listed or eligible for listing in the CRHR, or in a local register of historical resources as defined in PRC 5020.1(k)
  - Is a resource determined by the lead agency, in its discretion and supported by substantial evidence, and after considering the significance of the resource to a California Native American Tribe, to be significant pursuant to criteria set forth PRC 5024.1(c)

3.13.3.3 Methodology for Determining Impacts

The CEQA Guidelines define a substantial adverse change in the significance of a Tribal cultural resource as a significant effect on the environment. A substantial adverse change to Tribal cultural resources is defined to include physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the resource (its eligibility for the CRHR or local preservation registers) would be materially impaired (CEQA Guidelines Section 15064.5[b][1]).

3.13.3.4 Impact Analysis

3.13.3.4.1 TRI-1: 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: i) 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 ii) 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 (c) of Public Resources Code 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

The NAHC conducted a search of the SLF and found the project area did not contain any previously identified sacred and cultural sites. Although no existing SLF records are present within the proposed project, there is the potential for ground disturbance to impact unrecorded cultural sites. Portions of the proposed project may involve ground disturbance varying from minor excavation activities to larger-scale project construction. Designs provided by International Material Handling on February 23, 2026, do not exceed 4 feet for any project elements. Prior geotechnical borings conducted in the project area observed 5.5 feet to 10 feet of fill (Kleinfelder 2019; Port 2020). Any project elements with ground disturbance exceeding the expected depth of fill have potential to impact Tribal cultural resources, if present. Demolition and installation elements with ground distance, including installation of new steel and precast concrete support piles, above the recorded artificial fill have moderate potential to affect Tribal cultural resources. Significant changes to any Tribal cultural resource could occur from maneuvering construction equipment or from construction activities, such as compression, trampling, rutting, mixing soils, excavating by drills or heavy machinery, and restricting access. These impacts could affect Tribal cultural resources within previously disturbed artificial fill and other previously disturbed areas.

Impact Determination: Although demolition and improvement activities are not expected to result in significant impacts to known or potential Tribal cultural resources, deeper potential ground disturbance, such as pile installation and some improvement elements could have the potential to impact unknown or unexpected Tribal cultural resources. Therefore, impacts related to Tribal cultural resources are considered to be potentially significant.

Mitigation Measures: The following mitigation measure would be implemented to reduce impacts:

- **MM-CUL-1:** Inadvertent Discovery of Cultural Resources and Human Remains (see CUL-1 for more information).

Residual Impact: Implementation of MM-CUL-1 would control the potential for significant adverse impacts to Tribal cultural resources. Impacts would be reduced to less than significant with mitigation.

4 Cumulative Impacts

4.1 Requirements for Cumulative Impact Analysis

CEQA requires that EIRs analyze cumulative impacts. As defined in Section 15355 of the CEQA Guidelines, a cumulative impact consists of an impact that is created as a result of the combination of a project evaluated in an EIR together with other past, present, and reasonably foreseeable future projects causing related impacts in the vicinity of the proposed project. CEQA Guidelines Section 15130 requires that an EIR discuss cumulative impacts of a project when the project's incremental effect is "cumulatively considerable." The following definition of cumulatively considerable is provided in CEQA Guidelines Section 15065(a)(3):

> "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.

According to CEQA Guidelines Section 15130(b),

> [t]he discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by standards of practicality and reasonableness, and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact.

Where a lead agency is examining a project with an incremental effect that is not "cumulatively considerable," a lead agency need not consider that effect significant but must briefly describe its basis for concluding that the incremental effect is not cumulatively considerable. Cumulative impact assessments are not required for impacts that do not result in part from a project evaluated in an EIR. Therefore, the cumulative impact analysis in this section focuses on whether the impacts of the proposed project are cumulatively considerable within the context of impacts caused by other past, present, or future projects. The cumulative impact scenario considers other projects proposed within the area defined for each resource that have the potential to contribute to cumulatively considerable impacts.

According to CEQA Guidelines Section 15130(b)(2),

> Factors to consider when determining whether to include a related project should include the nature of each environmental resource being examined, the location of the project and its type. Location may be important, for

example, when water quality impacts are at issue since projects outside the watershed would probably not contribute to a cumulative effect. Project type may be important, for example, when the impact is specialized, such as a particular air pollutant or mode of traffic.

CEQA Guidelines section 15130(b) sets forth two approaches when considering what cumulative projects to include in the analysis. The "list approach" considers specific past, present, and probable future projects in the geographical or service area of the resource. The "projection approach" is based on growth forecasts in planning documents. To ensure a comprehensive analysis, this study combines the list approach with regional growth projections to capture both immediate and long-term impacts. In preparing the cumulative impact analysis, related projects that have been or may be constructed in the geographic scope of the proposed project were reviewed and evaluated. Using guidance provided in CEQA Guidelines Section 15130, past projects related to the development of the Port and present and future projects that have similar potential for impacts and are located in the same geographical area as the proposed project were identified. Section 4.1.1 includes a discussion of past projects that have shaped the Port, and Table 41 offers a list of present and probable future projects considered for their related impacts. In consideration of these projects, cumulative impact analyses for each environmental issue potentially affected by the proposed project are presented herein. For several resource areas, this cumulative impact analysis also includes projected future growth as a factor.

4.2 Projects Considered Under Cumulative Analysis

Consistent with CEQA Guidelines, the cumulative impact scenario considers other projects proposed within the geographic scope defined for each resource that have the potential to contribute to cumulatively considerable impacts. Impacts were identified using the list methodology. Resource areas were analyzed using a list of closely related projects that have been or would be constructed in the cumulative geographic scope. The list of related projects is provided in Section 4.1.2. In addition to using the list methodology, for resource areas where background growth projections could be incorporated, the cumulative analysis also considered projections included in the City's 2040 General Plan (City 2018) and other regional planning documents. For example, traffic projections contained in the SJCOG's RTP were considered in the traffic analysis.

4.2.1 Past History of the Port

This section describes the historical context that has contributed to the present development of the Port and surrounding area as a working port and transportation hub. Historical factors have contributed to the baseline conditions present in the project area, Port, and surrounding area, including air quality attainment status and cultural significance.

The city has been a hub of trade since the early 1800s when the gold rush spurred the movement of goods and materials from the coast inland by boat on the San Joaquin River and later rail. Following the gold rush, trade continued to support area agriculture. By the early 1900s, the city was a major industrial and transportation center, supporting flour mills, wagon factories, iron foundries, and shipyards. In 1930, dredging of the San Joaquin River began to increase navigational depths and create a navigation channel to support larger vessels (City 2018). In 1933, the Port opened as the first inland seaport in California. The first dock and transit shed were constructed at the Port in the 1930s followed by the unified rail. The first on-dock rail operation started in 1934, and the first petroleum container was constructed at the Port during the same year. Deepening of the navigation channel to -35 feet MLLW began in 1935 (Port 2020). Large portions of the Port were commissioned by the U.S. Navy and became part of the Stockton Ordnance Depot during World War II. Many of the paved roads and rail spurs at the Port were constructed during this period. In 1956, the Department of Defense began the process of conveying the property to the Port, which was completed in 1967. Rough and Ready Island, an area to the west of the Port, remained U.S. Navy property, with active operations ongoing through the 1990s.

Containerization of cargo started in the late 1950s when the Matson Navigation Company's ship *Hawaiian Merchant* carried 20 containers from Alameda, California to Honolulu, Hawaii. The Port strategically elected not to pursue containerization in the 1960s, establishing itself as one of the largest dry/break-bulk and liquid bulk ports on the west coast. The Port continued to modernize through the mid and late 1900s to support bulk shipments, including replacing older timber wharves with concrete wharves, expanding warehouse facilities, and constructing more rail facilities. Today, the Port supports warehouse storage and handling facilities for both dry and liquid bulk materials, facilities, and equipment to handle break-bulk cargo by land or sea. Over time, the Port has continued to grow, adding land and terminals. The most recent acquisition was Rough and Ready Island from the U.S. Navy in 2000.

Since the 1940s, there has been major commercial and residential development, and industrial growth, mostly to the north of the Port. The transportation network, especially highways, has consequently grown to accommodate growth in residential, agricultural, and energy sectors (City 2018).

4.2.2 Present and Future Projects

As shown in Table 41 and Figure 16, a total of 26 present, recently completed, or reasonably foreseeable future related projects (approved or proposed) were identified within the general vicinity of the proposed project that could contribute to cumulative impacts. These projects were selected because they are located in the Port or are located in the immediate project area (generally within the city) through which proposed project mobile sources (i.e., trucks and vessels) would be likely to travel (including roadways in the area). Projects on the list were analyzed to determine whether they

may have the potential to result in related impacts to those of the proposed project (e.g., air quality impacts from the use of construction equipment or new sources of combustion) when considered in conjunction with the proposed project. The cumulative geographic scope differs by resource and sometimes for impacts within a resource; related projects may contribute to a cumulative risk in one resource area but not in another. Cumulative regions of influence are documented in Section 4.2.

Table 41
Related Present and Future Projects Considered in the Cumulative Impact Analysis

Reference No.	Project Name	Location	Project Description	Project 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.	Complete
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.	Complete
3	Port of Stockton West Complex Development Plan: Infrastructure Improvements	Port of Stockton	Industrial development associated with the Port's West Complex.	Complete
4	State Route 4 Crosstown Freeway Ramp 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.	Complete

Reference No.	Project Name	Location	Project Description	Project Status
9	SATCO Marine Terminal	Port of Stockton	Construction and operation of a sulfuric acid facility on the East Complex.	Complete
10	Nautilus Data Technology Data Storage Facility	Port of Stockton	Construction and operation of a waterborne data center facility at the West Complex.	Complete
11	San Francisco Bay to Stockton (John F. Baldwin and Stockton Ship Channels) Navigation Improvement	Stockton DWSC	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.	Planning underway
15	Miner Avenue Complete Streets Road Plan	City of Stockton and Caltrans	Project consists of a lane reduction from four to two lanes and the addition of Class II bicycle lanes throughout the project area and other traffic improvements.	Complete
16	BWC (Contanda) Port Road A Facility Expansion	Port of Stockton	Project consists of expanding an existing liquid bulk terminal by removing 14 existing ASTs and replacing them with five new ASTs of greater capacity.	Complete
17	BWC (Contanda) Renewable Diesel Bulk Liquid Terminal Development	Port of Stockton	Project consists of the 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; EIR Addendums certified (2021, 2022)

Reference No.	Project Name	Location	Project Description	Project Status
18	Eco-Energy Liquid Bulk Receiving Terminal Development	Port of Stockton	Project consists of 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.	Complete
19	NuStar Ethanol Infrastructure Upgrades	Port of Stockton	Project consists of on-terminal infrastructure upgrades to accommodate Eco-Energy supplied ethanol.	Complete
20	NuStar Domestic Renewable Diesel	Port of Stockton	Project consists of on-terminal infrastructure upgrades to accommodate domestic renewable diesel deliveries.	Complete
21	NuStar MOTEMS Development and Vessel Service	Port of Stockton	Project consists of 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	Project consists of a new transloading facility to receive whole cottonseed by rail and transport it out by truck A new terminal to receive natural soda ash by rail and transport it out by ship	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.	On hold
24	Port of Stockton Rail Bridge Replacement and Rail Improvements	Port of Stockton	Replacing functionally obsolete rail bridge with a double-track rail bridge, adding a second Port lead track, constructing new yard track on the East Complex, and constructing a new rail classification yard on the West Complex to increase the overall efficiency of train operations within the Port.	IS/MND certified; permitting underway
25	TC NO. CAL. Development Warehousing and Distribution Facility	Port of Stockton	Development of a 655,000-square-foot build-to-suit distribution facility on the West Complex, under three phases.	EIR certified; under construction

Reference No.	Project Name	Location	Project Description	Project Status
26	BWC Terminals MOTEMS Marine Oil Terminal Dock	Port of Stockton	Construction of a new MOTEMS-compliant marine terminal dock to support renewable fuel transfer, including upgraded berthing, safety, and spill prevention systems.	Complete
27	Proposed Project			

Figure 16
Cumulative Projects



LEGEND:

- Navigation Channel
- 1 Port of Stockton West Complex Development Plan: Marine Terminal Development Project
- 2 Port of Stockton West Complex Development Plan: Commercial and Industrial Park Development Project
- 3 Port of Stockton West Complex Development Plan: Infrastructure Improvements Project
- 4 State Route 4 Crosstown Freeway Extension Project
- 5 Navy Drive Widening Project
- 6 Daggett Road Grade Separation Project
- 7 McCloy Avenue Extension Project
- 8 Targa Stockton Terminal Project
- 9 SATCO Marine Terminal Project
- 10 Nautilus Data Technology Data Storage Facility Project
- 11 San Francisco Bay to Stockton (John F. Baldwin and Stockton Ship Channels) Navigation Improvement Project
- 12 Twitchell and Mandeville Island Dredge Material Placement Sites Project
- 13 ACE Rail Maintenance Facility Improvements Project
- 14 Open Window Master Development Plan Project
- 15 Miner Avenue Complete Streets Road Plan Project
- 16 Contanda Port Road A Facility Expansion Project
- 17 Contanda Renewable Diesel Bulk Liquid Terminal Development Project
- 18 Eco-Energy Liquid Bulk Receiving Terminal Development Project
- 19 NuStar Ethanol Infrastructure Upgrades Project
- 20 NuStar Domestic Renewable Diesel Project
- 21 NuStar Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS) Development and Vessel Service Project
- 22 CVAG Bulk Whole Cottonseed Transloading Facility Project
- 23 Denmar Natural Soda Ash Terminal Project
- 24 Port of Stockton Rail Bridge Replacement and Rail Improvements Project
- 25 TC NO. CAL. Development Warehousing and Distribution Facility Project
- 26 Nevada Cement Stockton Terminal Modernization Project

4.3 Analysis of Cumulative Impacts

The proposed project, in conjunction with other past, present, and reasonably foreseeable future related projects, has the potential to result in significant cumulative impacts when its independent impacts and the impacts of related projects combine to create impacts greater than those of the proposed project alone. The proposed project would not contribute to cumulative impacts related to those environmental resource areas on which it would have no impact, including all issues associated with agricultural and forestry resources, mineral resources, population and housing, public services, recreation, utilities and service systems, and wildfire. Rationale for this determination is summarized in Section 4.2.1. The cumulative impact evaluation subsequently presented in Section 4.2.2 is therefore focused on the same resources evaluated in Section 3: aesthetics, air quality, biological resources, cultural resources, energy, geology and soils, GHG emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, noise, transportation, and Tribal cultural resources.

4.3.1 Cumulative Impacts for Unaffected Environmental Resource Areas

4.3.1.1 Agriculture and Forestry Resources

The project site does not include any farmlands or forestry resources. The proposed project would have no impact on farmlands or forest lands, which precludes the proposed project from cumulatively contributing to an impact on these resources.

4.3.1.2 Mineral Resources

There are no mineral resources within the project site, and extraction of mineral resources within San Joaquin County is focused in the southwestern portion of the county in the vicinity of the San Joaquin River. The project site is within an MRZ-1 classified area, which shows that "adequate information indicates that no significant mineral deposits are present, or it is judged that little likelihood exists for their presence" (City 2007). Therefore, the proposed project would have no impact related to mineral resources, which precludes the proposed project from cumulatively contributing to an impact on this resource.

4.3.1.3 Population and Housing

There are no housing units within the project site, and the zoning precludes construction of any housing. No new homes, businesses, or road extensions would occur as part of the proposed project. Therefore, the proposed project would result in no impacts pertaining to population and housing, which precludes the proposed project from cumulatively contributing to an impact on these resources.

4.3.1.4 Public Services

The proposed project would not result in the need for additional public services or facilities, including fire or police protection, schools, or parks, beyond those currently available in the project area. The project area is adequately served by the City Fire Department, City Police Department, and Port Police. Any minor increases in demand would be accommodated by these existing service providers. The proposed project would result in no impact to fire protection, police, schools, parks, or other public facilities, which precludes the proposed project from cumulatively contributing to an impact on these resources.

4.3.1.5 Recreation

The proposed project does not include construction or expansion of any recreational facilities and would not result in increased demand or other effects to recreational facilities. The proposed project would result in no impacts related to recreation, which precludes the proposed project from cumulatively contributing to an impact on this resource.

4.3.1.6 Utilities and Service Systems

The existing terminal and dock include water connections to meet facility demand. Terminal and dock redevelopment may require new or revised connections to existing utilities for proposed improvements. A new high-capacity electrical service will be provided by PG&E at a location near the existing service entrance. No other construction or expansion of any existing utility facilities is anticipated. The proposed project would not result in increased water supply, wastewater treatment, or solid waste management demands. For these reasons, the proposed project would result in no impacts related to utilities and service systems, which precludes the proposed project from cumulatively contributing to an impact on this resource.

4.3.1.7 Wildfire

The project site is located in an area that is industrialized, generally flat, and contains very limited vegetation, which is not considered at a significant risk of wildfire. The proposed project would not impair emergency response plans, require the installation of infrastructure that could exacerbate wildfire risk, or expose people to significant risks. Therefore, the proposed project would result in no impacts related to wildfire, which precludes the proposed project from cumulatively contributing to an impact on this resource.

4.3.2 Cumulative Impacts for Affected Environmental Resource Areas

4.3.2.1 Aesthetics

The geographic scope of the cumulative aesthetics analysis consists of the project site and the immediate vicinity at the Port. Projects that have the potential to result in impacts to scenic vistas, scenic resources, visual quality and view blockage, and nighttime illumination and glare have the

potential to contribute to cumulative impacts on aesthetics resources. These include projects that result in the loss of scenic resources or the introduction of contrasting features that could degrade the visual character of the project area. There are no identified scenic highways or vantage points in the project area from which the proposed project could be seen, and the project area is located in an area identified as industrial both currently and in future plans.

4.3.2.1.1 Cumulative Impact Analysis

As discussed in Section 3.1, the proposed project would have less-than-significant impacts to aesthetics resources. In general, because the proposed project would not be visible from or block views of any identified scenic vista or scenic highway, it would not contribute to such cumulative impacts. The proposed project would be similar in character to existing conditions and surrounding industrial Port projects.

The projects in Table 41, Related Present and Future Projects Considered in the Cumulative Impact Analysis, of relevance to the cumulative impact analysis for aesthetics are those that contribute to the overall industrial nature of the surrounding area. Most the projects listed in Table 41 are industrial sites, most of which are within Port property. As mentioned, the proposed project would be consistent with the visual character of the study area. Therefore, there would be no cumulative impact to scenic vistas or substantial degradation of the existing visual character of public views of the site or its surroundings from implementation of the proposed project. The project would conform with applicable zoning and other regulations governing scenic quality; therefore, there would be no cumulative impact regarding zoning or scenic quality regulations. The project site as well as the projects listed in Table 41 are not located along or visible from a scenic highway; therefore, they would not cumulatively affect scenic resources along a scenic highway. Finally, because the proposed project would not create a new source of substantial light or glare and would not impact day or nighttime views, the proposed project would not cumulatively contribute to light and glare and day and nighttime views impacts. Any future development project would be reviewed by the City and/or the Port for compatibility with the General Plan, zoning, and Port standards for aesthetics and would be required to address any potential impacts with mitigation.

4.3.2.1.2 Conclusion

Based on these analyses, it is concluded that the proposed project and projects listed in Table 41 would not have cumulatively considerable impacts on aesthetics.

4.3.2.2 Air Quality

The geographic scope of the cumulative air quality analysis is the SJVAB, SFBAAB, and SVAB. The proposed project would contribute air emissions from construction and operational activities within these air basins, including on-site emissions within the SJVAB and off-site emissions associated with truck, rail, and vessel activities in the SJVAB, SFBAAB, and SVAB.

Cumulative air quality impacts occur when emissions from multiple projects combine to adversely affect regional air quality or interfere with implementation of applicable air quality plans. As discussed in Section 3.2.1, the SJVAB is designated nonattainment for O_3 and PM under both state and federal standards. Accordingly, additional emissions of O_3 precursors (NOx and VOC) and PM (PM_{10} and $PM_{2.5}$) contribute to existing regional air quality problems and may delay attainment of AAQS. SJVAPCD, BAAD, and SMAQMD have adopted air quality plans and CEQA significance thresholds intended to identify projects that could interfere with implementation of these plans. Projects exceeding these thresholds are considered to have the potential to make a cumulatively considerable contribution to regional air quality impacts.

The SJVAPCD's 2024 $PM_{2.5}$ Plan and 2022 Ozone Plan recognize acknowledge that reducing mobile source emissions, including from cars, trucks, aircraft, and farm vehicles, are critical to attaining the standard but are not under the direct authority of SJVAPCD.

4.3.2.2.1 Cumulative Impact Analysis

Criteria Air Pollutants. Construction and operational emissions are the primary sources of cumulative air quality impacts. Each of the projects listed in Table 41 would occur within the SJVAB and include emissions from construction or operations. Therefore, air quality impacts from all of the projects in Table 41 were considered in terms of their cumulative impacts. Projects listed in Table 40 have been or would be required to perform their own analyses of associated air quality impacts, including development of mitigation measures to address significant impacts, if necessary. Several of the projects listed in Table 41 include or have included the construction and operation of industrial facilities within the Port, including Projects 1 through 3, 5 through 12, 13, and 16 through 26. Emissions from these projects would be generated from construction equipment and activities, as well as from stationary and mobile source operational emissions. Several of the project construction schedules, including for Projects 24 and 25, may overlap with that of the proposed project. Projects 1 and 2, 8 through 11, 13, and 16 through 26 include truck, rail, and/or ship movements that would result in mobile source emissions and/or result in emissions from on-terminal equipment. Emissions from these projects combined with the proposed project would emit O_3, PM_{10}, and $PM_{2.5}$, along with O_3 precursors such as NOx, and contribute to nonattainment levels and subsequent adverse air quality effects.

As discussed in Section 3.2, unmitigated construction emissions would exceed SJVAPCD significance thresholds for NOx. However, implementation of mitigation measures MM-AIR-1 and MM-AIR-2 would reduce construction-related NOx emissions below applicable SJVAPCD significance thresholds, with MM-AIR-1 providing additional reductions through idling restrictions. Although construction of several related projects could overlap temporally with the proposed project, implementation of these mitigation measures would reduce the proposed project's incremental contribution such that

construction emissions would not result in a cumulatively considerable contribution to regional pollutant levels.

Operational emissions from the proposed project would exceed SJVAPCD significance thresholds in Year 15, and vessel transit emissions would exceed applicable BAAD significance thresholds in Years 5 and 15. As discussed in Section 3.2, operational emissions would also not be fully consistent with the emission reduction objectives of the Port of Stockton Clean Air Plan or applicable City of Stockton General Plan air quality and environmental justice policies. Emissions from the proposed project would combine with emissions from existing industrial operations and reasonably foreseeable future development projects to contribute to existing regional air quality problems. Although implementation of mitigation measures MM-AIR-3 through MM-AIR-6 would reduce operational emissions through equipment controls, operational limitations, and improved dust collection systems, operational emissions would continue to exceed applicable SJVAPCD significance thresholds, and vessel transit emissions would continue to exceed applicable BAAD significance thresholds. Accordingly, operational emissions would result in a cumulatively considerable contribution to regional air quality impacts.

Health Risk. Because the NAAQS and CAAQS are health-based standards and air quality in the San Joaquin Valley routinely violates the state and federal standards, ambient air quality in the valley already puts sensitive receptors at risk. The San Joaquin Valley also has some of the highest PM concentrations in the state. For example, health surveys reported in 2001 show a 24% higher prevalence of asthma in children in the San Joaquin Valley than in the rest of the state and a 19% higher prevalence for adults (ARB 2015). Similar to the discussion on criteria pollutants, related projects in Table 41 resulting in new or expanded sources of air emissions would combine with emissions from the proposed project and could potentially contribute to existing health risks in the region. Unlike air quality standards that measure mass emissions within a region, an HRA considers the specific effects of criteria pollutants and air toxic contaminants on the closest sensitive receptors.

As discussed in Section 3.2, the proposed project's HRA concluded that project-specific cancer risk and chronic and acute hazard indices would remain below SJVAPCD significance thresholds. However, several nearby industrial projects identified in Table 41, including Projects 8 through 11, 23, 24, and 26, would generate emissions from trucks, locomotives, vessels, and on-terminal equipment in the same general vicinity as the proposed project. Although these projects may affect similar receptors, each project would be subject to project-specific permitting and CEQA review, including evaluation of health risk where required. Because the proposed project's health risk impacts would remain below applicable significance thresholds, the project would not make a cumulatively considerable contribution to localized health risk impacts.

4.3.2.2.2 Conclusion

Construction emissions from the proposed project would be reduced below applicable significance thresholds through implementation of MM-AIR-1 and MM-AIR-2 and would not make a cumulatively considerable contribution to regional pollutant levels. However, operational emissions would continue to exceed applicable SJVAPCD significance thresholds, vessel transit emissions would continue to exceed applicable BAAD significance thresholds, and the project would not be fully consistent with the emission reduction objectives of the Port of Stockton Clean Air Plan or applicable City of Stockton General Plan air quality and environmental justice policies. Although MM-AIR-3 through MM-AIR-6 would reduce operational emissions, significant operational impacts would remain.

Although some emissions contributing to cumulative risk are generated by on-terminal stationary sources in the project area, the majority of emissions from the proposed project and other cumulative projects would originate from non-road construction equipment and mobile sources. Construction equipment is regulated by ARB through a comprehensive program aimed at accelerating the turnover of the oldest equipment to newer, cleaner models. Because construction is directly contracted by the project owner/operator, additional mitigation can be written into construction contracts. As discussed in Section 3.2.3, mobile sources, however, are often not directly controlled by the project owner/operator at the Port. Rather, those sources are contracted through third parties, making direct control via mitigation infeasible. For example, line-haul rail movements are controlled almost exclusively by the two mainline locomotive companies (BNSF and UP). Although trucks are also contracted by terminal operators, trucking companies and owner/operators are more numerous and operate within a more local market presenting more opportunities for choice. Therefore, mitigation is generally focused on construction equipment and trucks.

Because the project would contribute emissions to air basins that already experience regional air quality challenges, and because operational impacts remain significant after mitigation, the proposed project's contribution to cumulative regional air quality impacts would be cumulatively considerable, and cumulative air quality impacts would be significant and unavoidable.

4.3.2.3 Biological Resources

The geographic scope of the cumulative biological resources analysis consists of the project site and areas in close proximity that may be affected by the proposed project’s construction or operations. Past, present, and reasonably foreseeable future development that could contribute to significant cumulative impacts on terrestrial resources are those projects that involve land disturbance, such as grading, paving, landscaping, and construction of infrastructure. Impacts to aquatic resources could occur from activities in the water, such as dredging, filling, wharf demolition and construction, vessel traffic, and runoff from pollutants. The significance criteria used to evaluate impacts on biological

resources include potential effects on special-status species and sensitive habitats as well as consistency with applicable regulations and policies protecting biological resources.

4.3.2.3.1 Cumulative Impact Analysis

Special-Status Species. As described in Section 3.3.1, the upland portion of the project site and surrounding area is devoid of unique habitats or habitat features suitable for terrestrial special-status species. The adjacent San Joaquin River shoreline does include some mature trees across the channel and downstream from the project site that may provide suitable nesting habitat for MBTA-protected bird species. Ground-nesting birds protected by the MBTA may also be present within or near the immediate project footprint. Of the projects listed in Table 41, Projects 16, 17, and 26 would occur within the immediate project area and would also include construction activities that have the potential to affect special-status bird species. Through compliance with the SJMSCP, SJCOG will require that approved projects implement measures that will avoid or minimize impacts on nesting birds. Implementation of mitigation measure MM-BIO-1 would ensure that the proposed project's impacts on special-status species remain less than significant by either obtaining coverage under the SJMSCP or conducting nesting-bird surveys consistent with CDFW's standard requirements. Therefore, there would be no cumulative contribution to impacts on terrestrial biological resources from the proposed project under BIO-1.

As discussed in Section 4.1, the San Joaquin River has been dredged regularly since the 1930s, and Projects 1, 10, 11, 23, 24, and 26 in Table 41 include in-water components or changes to vessel activity within the San Joaquin River. As discussed in Section 3.3.3, there would be less-than-significant impacts from the proposed project on aquatic biological resources under BIO-1. The in-water impact areas are not within any nursery sites for special-status fish species. In-water construction activities, including pile driving, would occur outside of known nursery habitat for special-status fish species and may temporarily affect localized movement or migration of special-status fish in the immediate vicinity, if present. These activities may also result in minor, localized increases in turbidity from disturbance of benthic sediments. However, such effects would be short term and would not result in measurable changes to regional species movement or migration within the San Joaquin River. The proposed project would result in an increase in vessel calls; however, this increase would be consistent with existing and ongoing vessel activity and would have a negligible effect on aquatic habitat. Mitigation measures MM-BIO-1 through MM-BIO-5 would reduce the potential exposure of special-status species to construction impacts by requiring pre-construction surveys, establishing buffer zones, limiting in-water work to approved construction windows, allowing species to avoid the work area, and implementing shutdown zones during pile driving. Mitigation measures MM-BIO-2 and MM-BIO-5 would further reduce potential impacts by minimizing pollutant inputs to the aquatic environment, and mitigation measure MM-BIO-6 would provide compensatory mitigation for conservatively modeled bioacoustic impacts.

Sensitive Habitats. The proposed project would not affect riparian habitat, wetlands (BIO-3), or other sensitive natural communities because none are present within the project footprint. There would also be no impact to native wildlife nursery sites. Although the proposed project would occur within designated critical habitat and EFH, permanent impacts would be negligible and offset by improvements to habitat conditions. Temporary construction-related impacts (e.g., turbidity, noise, and localized disturbance) would be minor and short term. Implementation of mitigation measures MM-BIO-2 through MM-BIO-5 would further minimize these effects. Therefore, the proposed project would not result in a cumulatively considerable contribution to impacts on critical habitat or EFH under BIO-2, and cumulative impacts would be less than significant.

Wildlife Movement and Corridors. Proposed project construction may impede localized movement of resident or migratory fish, which would constitute a potentially significant impact under BIO-4. Implementation of MM-BIO-3 would ensure that construction occurs when special-status fish species are least likely to be present, thereby further reducing any impacts on localized movement. Implementing MM-BIO-4 would ensure that any fish present are able to move away from the area of impact in adjoining waters where movement would not be affected by construction noise. MM-BIO-5 would provide additional protection for wildlife movement. With implementation of these mitigation measures, impacts to wildlife movement and corridors would be reduced to less than significant.

Plans and Policies. The proposed project would result in no impact from conflicts with local policies or ordinances pertaining to biological resources under BIO-5. The proposed project has the potential to temporarily adversely affect special-status species under BIO-1, which could result in a conflict with biological resource goals and policies from the SJMSCP. This would constitute a potentially significant impact. Implementing MM-BIO-1 includes compliance with SJMSCP requirements or implementation of equivalent avoidance measures would reduce this impact to less than significant.

With implementation of mitigation measures MM-BIO-1 through MM-BIO-6, the proposed project's contribution to cumulative impacts on special-status aquatic species and sensitive aquatic habitats, as well as consistency with applicable regulations and policies protecting biological resources, would not be cumulatively considerable, and cumulative impacts would be less than significant.

4.3.2.3.2 Conclusion

Based on these analyses, it is concluded that the proposed project and projects listed in Table 41 would not have cumulatively considerable impacts on biological resources.

4.3.2.4 Cultural Resources

The geographic scope of the cumulative analysis for cultural and historic resources consists of the project site and the immediate vicinity at the Port. Projects on land that have the potential to modify or demolish structures that are more than 50 years old have the potential to contribute to cumulative impacts on historic architectural resources. Projects that include excavation that may disturb native

fill may disturb, damage, or degrade listed, eligible, or otherwise unique or important archaeological resource.

4.3.2.4.1 Cumulative Impact Analysis

As discussed in Section 3.4, although alluvial processes have likely erased most early archaeological sites, the Delta has probably been occupied since the late Pleistocene/early Holocene, beginning around 11,000 years ago. The earliest documented sites in the region date to about 9,000 years ago and are thought to have been mobile communities focused on hunting and fishing. There is evidence of industrial and land development in the immediate vicinity of the project site since at least the early 1900s, which intensified through the mid to late 20th century. Based on these conditions, archaeological and historic resources have the potential to be present in the Port.

As discussed in Section 3.4 under CUL-1, no historic resources would be impacted as a result of the proposed project because no historic resources are present within the study area. Therefore, the proposed project would not contribute to cumulative impacts on a historic resource.

The proposed project includes excavation into native soils. If archaeological materials or human remains are present in previously undisturbed native sediments, they could potentially be disturbed during construction. Although much of the area has been previously disturbed, construction activities (i.e., excavation, dredging, and land filling) associated with present and future Port projects, including Projects 1 through 3, 5, 8 through 11, 18, 21, 23, 24, and 26 would also include excavation into native soils and could also disturb archaeological resources or human remains, as discussed under CUL-2. The proposed project requires implementing MM-CUL-1 if "human remains or prehistoric and/or historical archaeological resources are encountered during project construction." At a minimum, any construction associated with the projects listed in Table 41 that include excavation would also proceed in adherence with this guideline, in addition to federal, state, and local regulations designed to address cultural resource impacts potentially arising from construction.

4.3.2.4.2 Conclusion

Based on these analyses, it is concluded that the proposed project and projects listed in Table 41 would not have cumulatively considerable impacts on cultural and historic resources.

4.3.2.5 Energy

The geographic scope of the cumulative analysis for energy consists of the Port and the service areas of energy providers that serve the Port. Projects that have the potential to consume energy in a manner that is considered wasteful, inefficient, or unnecessary or that would contribute to the obstruction of state and or local plans for renewable energy or energy efficiency have the potential to contribute to cumulative impacts on energy.

4.3.2.5.1 Cumulative Impact Analysis

The proposed project would not require any unusual or excessive construction equipment or practices compared to projects of similar type and size. Construction and operations would comply with standard BMPs such as equipment idling restrictions and maintaining equipment according to manufacturers' specifications. The proposed project would not waste or unnecessarily consume energy resources or conflict with renewable energy or energy efficiency plans. The proposed project includes an expansion of existing operations. However, because overall operations, including the new ship unloader and enclosed conveyors, would be more energy efficient, the energy demand per unit of cargo would decrease. For these reasons, the proposed project would result in less-than-significant impacts on energy. It is likewise reasonably foreseeable that any projects listed in Table 41, which are within the Port or the City, would be subject to CEQA and compliance with the 2040 General Plan (City 2018) or the Port's Renewable Portfolio Standard Procurement Plan (see Section 3.5.2.4.1), which require adherence with energy efficiency goals and renewable energy or energy efficiency regulations.

4.3.2.5.2 Conclusion

Based on these analyses, it is concluded that the proposed project and projects listed in Table 41 would not have cumulatively considerable impacts on energy.

4.3.2.6 Geology and Soils

The geographic scope of the cumulative geology and soils resources analysis is limited to the project site and immediate surroundings because the project site does not contain any substantial topographic features or notable geologic conditions that could expand geology and soil effects beyond this area.

4.3.2.6.1 Cumulative Impact Analysis

Of the projects listed in Table 41, Projects 4, 16, 17, 18, 24, and 26 would all occur in close proximity to the proposed project and would similarly be affected by a seismic event. The proposed improvements would be designed according to seismic design and engineering standards, and impacts related to seismicity would be less than significant. Similar to the proposed project, the nearby projects in Table 41 are required to be constructed in adherence with applicable design standards relating to seismic hazards. The proposed project has the potential to result in soil erosion during construction, but impacts would be reduced to less than significant with implementation of standard permit requirements (MM-BIO-2) and standard construction BMPs, including erosion control (MM-GEO-1). It is reasonably foreseeable that nearby projects in the Port or City would also be required to obtain similar permits and implement best practices and would not combine with project effects so as to result in less-than-significant impacts.

4.3.2.6.2 Conclusion

Based on these analyses, it is concluded that the proposed project and projects listed in Table 41 would not have cumulatively considerable impacts related to geology and soils.

4.3.2.7 GHG Emissions

The geographic scope of the cumulative GHG emissions analysis in this DEIR is California, because the state has established target statewide GHG reductions. As discussed further in Section 3.7, the state has established a comprehensive goal to achieve targets for carbon neutrality and reduce GHG emissions by 85% below 1990 levels no later than 2045, which includes emission reduction targets from all sectors enacted by a series of regulations and programs. The state's plan also requires local communities to develop CAPs.

4.3.2.7.1 Cumulative Impact Analysis

Global surface temperatures have trended higher over the past century, due to the generation of GHG emissions from human activities. Some observed changes include shrinking glaciers, thawing permafrost, and shifts in plant and animal ranges. Emissions of GHGs contributing to global climate change are attributable to human activities associated with manufacturing, utilities, energy extraction, transportation, agriculture, and residential uses. Therefore, the proposed project, all past projects, and all present and future related projects in Table 41 that maintain or increase mass GHG emissions contribute to global climate change.

4.3.2.7.2 Conclusion

Each of the projects listed in Table 41 would occur within California and emit GHG emissions from construction and operations. Emissions would come largely from mobile source combustion and electricity use. Because of the nature of GHGs, impacts from these projects would be additive. The projects listed in Table 41 would be subject to CEQA and are required to perform their own analyses of associated GHG impacts, including development of mitigation measures to address these impacts based on the same plans and policies as the proposed project (see Section 3.7.2.1). As discussed in Section 3.7.3, there would be limited mitigation options to reduce GHG emissions. Mitigation measures MM-AQ-1, MM-AQ-3, MM-AQ-4, and MM-AQ-5 would be implemented as part of the proposed project and would help reduce GHG emissions and criteria pollutant emissions by controlling unnecessary idling and promoting the use of newer, more efficient trucks. Implementation of MM-GHG-1, MM-GHG-2, and MM-GHG-3 would help reduce waste and increase energy efficiency and MM-GHG-4 would support the transition from fossil fueled vehicles to electric vehicles. In addition, the proposed project, as well as other reasonably foreseeable future projects, including those in Table 41 would be subject to future requirements imposed by ARB's 2022 Climate Change Scoping Plan Update (ARB 2022). The Climate Change Scoping Plan Update describes how California will reduce its GHG emissions by 40% below 1990 levels by 2030, and all of the projects in

Table 41 are subject to statewide initiatives. For example, low carbon fuels are becoming more available because of the LCFS. Statewide programs to incentivize electric cars, trucks, and equipment, along with initiatives to promote renewable energy standards which will decarbonize the electricity grid will reduce emissions. However, until such requirements are implemented and mandated at a project level it is assumed that cumulative GHG emissions would be cumulatively considerable and impacts would be significant and unavoidable.

4.3.2.8 Hazards and Hazardous Materials

The geographic scope of the cumulative hazards and hazardous materials analysis consists of the project site, soil and groundwater in the immediate area, and rail and roadways that would be affected in the event of an accidental release of hazardous materials during transport. The analysis is based on the project's contribution to public or environmental hazards through routine use, transport, or accident conditions related to hazardous materials during construction and operation; existing and planned emergency action plans; and siting relative to schools, residents, airports, other sensitive receptors, or wildfire hazard areas.

4.3.2.8.1 Cumulative Impact Analysis

The proposed project includes increased throughput of bulk cementitious materials, which may be hazardous to persons or the environment if improperly managed. Proposed improvements have been designed to improve proper containment of material during receipt, storage, and transfer, thereby reducing the potential for releases to the environment and exposure to people. There are no on-site hazards or less-than-significant potential environmental liabilities from past uses of the project site under HAZ-4 (Port 2020). However, the proposed project would result in increased on-site handling of cementitious materials and common industrial materials (e.g., fuels, lubricants, and cleaners), which could pose hazards to workers and the environment if improperly managed. In addition, construction activities could expose workers and the environment to potentially hazardous materials, including asbestos-containing materials, lead-based paint, PCBs, mercury-containing materials, ADL, or residual pesticides, as well as accidental releases of fuels or other construction-related materials. Although existing site-specific emergency response and handling plans, standard practices, and regulatory requirements address many of these risks, the potential for exposure and accidental release remains under both construction and operational conditions. Therefore, impacts would be potentially significant. With implementation of mitigation measures MM-BIO-2, MM-BIO-3, and MM-HAZ-1 (Section 3.8), the proposed project's impacts regarding public or environmental hazards through routine use, transport, or accident conditions related to hazardous materials under HAZ-1 and HAZ-2 would be less than significant.

Several of the projects listed in Table 41, particularly the projects in close proximity to the proposed project with proposed industrial uses, including Projects 8, 9, 16 through 21, and 24 may similarly include the use, transport, and disposal of hazardous materials or occur on or near listed hazardous

material sites. Other projects that may include ground disturbance on or near listed hazardous material sites include Projects 4, 5, 16, 17, and 23. For these projects, potential impacts from hazardous materials use on site would likely be localized, and spills are unlikely to occur simultaneous to or combine with the proposed project. Any use, transport, disposal, or accidental spill of hazardous materials would occur per the same federal, state, and local regulations, plans, and standard practices that are in place and required to address risks under the proposed project (see Section 3.8.2), which would reduce impacts. As such, cumulative effects are not anticipated.

The proposed project would result in less-than-significant impacts regarding interference with emergency response, evacuation, or access (HAZ-6). The proposed project would result in no impacts or less-than-significant impacts for proximity relative to schools (HAZ-3), residents, airports (HAZ-4), or other sensitive receptors. The proposed project, and nearby projects, are not in a fire hazard severity zone and would have no impact related to wildland fire hazards. Therefore, the proposed project would not contribute cumulatively to these impact areas.

4.3.2.8.2 Conclusion

Based on the analysis, it is concluded that the proposed project and projects listed in Table 41 would not have cumulatively considerable impacts related to hazards and hazardous materials.

4.3.2.9 Hydrology and Water Quality

The geographic scope of the cumulative hydrology and water quality analysis consists of the project site, adjoining San Joaquin River waters, and areas immediately south of the project site that contribute run-on to the Nevada Cement facility drainage system. The analysis is based on impacts to surface and groundwater quality; groundwater supply; drainage; risk of release of pollutants due to project inundation; and compatibility with water quality or sustainable groundwater management plans.

4.3.2.9.1 Cumulative Impact Analysis

The proposed project would increase throughput of cementitious materials, which if improperly managed could degrade water quality. Construction has the potential to adversely affect water quality if improperly managed. Proposed facility improvements are designed to provide improved containment and handling of cementitious materials. Implementation and maintenance of existing spill control measures, compliance with all required permit terms, and implementation of mitigation measures MM-BIO-2, MM-BIO-5, and MM-HAZ-1 (Section 3.9) would ensure that the proposed project would result in less-than-significant impacts related to water quality standards under HYD-1.

Several of the projects listed in Table 41 that are in close proximity to the proposed project with proposed industrial uses, including Projects 8, 9, 16 through 24, and 26, may similarly use materials or entail construction that could adversely affect water quality if improperly managed. However, there is nothing to suggest that this would be the case, especially given that other projects would

similarly be subject to implementation of standard spill control measures; compliance with all required permit terms, including NPDES; and implementation of mitigation measures to ensure water quality impacts are minimized. Other projects on the Port's East Complex that could affect water quality during construction include Projects 4, 5, 16, 17, 24, and 26. These projects may also entail minor alterations to existing drainage systems. Similar to the proposed project, each of these projects would occur in adherence with NPDES and other permitting requirements, and compliance with the Port's MS4 permit terms and DSP (as applicable). Because of these requirements, significant cumulative surface water quality impacts are not anticipated.

The proposed project would have no impact related to groundwater supplies or recharge under HYD-2; therefore, there would be no proposed project contribution to cumulative groundwater impacts.

Under HYD-3, the proposed project would not substantially affect runoff or drainage patterns and would not result in substantial erosion, siltation, flooding, or exceedance of drainage system capacity. However, it could result in runoff containing pollutants if not properly managed, which could affect water quality. Implementation of mitigation measure MM-BIO-2, which requires adherence to a NPDES Construction Stormwater General Permit and construction BMPs, including erosion and sediment control measures, would reduce the impact to less than significant. The projects listed previously regarding surface water quality would similarly include construction that could contain polluted runoff if not properly managed. Those projects would be subject to similar water quality standards and mitigation efforts as the proposed project, such as NPDES and construction BMPS, thereby reducing impacts. As such, cumulative effects on water quality related to drainage are not expected.

The proposed project is not within a flood hazard, tsunami, or seiche zone and would have a less-than-significant impact related to release of pollutants due to flood risk under HYD-4. Projects in the area would also not be within flood hazard, tsunami, or seiche zones. Therefore, cumulative impacts related to risk of release of pollutants from flooding are not expected.

Under HYD-5, the proposed project would potentially conflict with the Basin Plan. Implementation of mitigation measures MM-BIO-2, MM-BIO-5, and MM-HAZ-1, which include BMPs such as erosion and spill controls and worker training, would reduce impacts to less than significant. It is anticipated that other projects listed previously that may conflict with the water quality standards in the Basin Plan would similarly be required to obtain a NPDES permit and implement mitigation measures to reduce impacts. Therefore, cumulative impacts related to adherence with the Basin Plan are not expected.

4.3.2.9.2 Conclusion

Based on these analyses, it is concluded that the proposed project and projects listed in Table 41 would not have cumulatively considerable impacts related to hydrology and water quality.

4.3.2.10 Land Use and Planning

The geographic scope of the cumulative land use and planning analysis consists of the East Complex which includes the project site and adjacent parcels. Past, present, and reasonably foreseeable future development that could contribute to significant cumulative impacts on land use and planning are those projects that involve division of established communities, significant changes to current land uses, or are incompatible with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

4.3.2.10.1 Cumulative Impact Analysis

The proposed project would have less-than-significant impacts to land use and planning regarding the division of an established community and consistency with the existing uses at the project site and would be compatible with all land use plans, policies, and regulations.

The projects in Table 41 are industrial sites, mostly within Port property, that would not involve significant land use changes or divisions within a community and would be consistent with relevant lands use plans and policies. As such, significant cumulative land use and planning impacts are not anticipated.

4.3.2.10.2 Conclusion

Based on the analysis, it is concluded that the proposed project and projects listed in Table 41, when combined, would not result in cumulatively considerable impacts on land use and planning.

4.3.2.11 Noise

The geographic scope of the cumulative noise analysis includes the project site and surrounding industrial area, as well as sensitive receptors that may be affected by construction equipment and proposed facility operation. The cumulative noise analysis relies in part on community noise standards included in the City's 2040 General Plan (City 2018).

4.3.2.11.1 Cumulative Impact Analysis

The closest sensitive receptor to the project site, a residential area north of Washington Street, is located approximately 350 feet to the south of the Nevada Cement property line, or 1,100 feet from the center of the property. Construction noise would exceed allowable background levels established in the General Plan, during pile driving and select other construction activities. Mitigation measures MM-NOI-1 through MM-NOI-3 would be implemented and reduce impacts to less-than-significant. Proposed project operations would not generate any new sources of vibration.

Construction noises from the projects listed in Table 41, including the projects likely to have overlapping construction schedules (Projects 24 and 25) with the proposed project, could result in short-term cumulative noise impacts from construction activities. However, Project 24 is located

approximately 1,000 to 5,000 feet from the project site and Project 24 is located over 10,000 feet away from the project site. Based on the way noise attenuates, it would likely affect different receptors than the proposed project.

Operational noise would combine with other projects listed in Table 41. Existing ambient noise levels at the nearest noise-sensitive receptors already exceed the City's applicable daytime and nighttime noise standards. Future development and intensification of industrial and Port-related activities in the vicinity, including reasonably foreseeable projects that could increase truck, rail, vessel, cargo-handling, and stationary-source noise, could further increase ambient noise levels at these receptors. Therefore, the cumulative noise environment could exceed applicable City standards and constitute a significant cumulative noise impact. The Project's contribution to this cumulative condition, however, would be limited. As described in Section 3.11, project operations would increase combined noise levels by no more than approximately 1 dBA L_{dn}, which is below the City's 3-dBA L_{dn} threshold for determining a significant incremental increase.

4.3.2.11.2 Conclusion

Based on these analyses, although cumulative development could result in a significant cumulative noise condition, the project's incremental contribution would not be cumulatively considerable, and the project's cumulative operational noise impact would be less than significant.

4.3.2.12 Transportation

The geographic scope for cumulative impacts on transportation includes existing transportation resources in the area surrounding the project site, consisting of roads, highways, and rail lines. As discussed in Section 3.12, aspects of a traffic analysis are by nature a cumulative issue. Traffic can be caused by many things such as poor infrastructure design, short-term construction, or the mass accumulation of vehicles on a roadway during peak travel hours. Like the analysis in Section 3.12, the cumulative analysis considers regional traffic plans and projections.

4.3.2.12.1 Cumulative Impact Analysis

The projects listed in Table 41 include a mix of industrial and infrastructure projects. Projects 3 through 7 include congestion relief projects that provide wider roads, bridge overpasses, and intersection improvements affecting roadways into and through the Port and adjacent areas, to reduce impacts on local road networks. Project 24 includes upgrades to the Port’s rail network. Each of these projects may contribute to short-term traffic during construction but in the long term would increase the operational capacity of Port roads and infrastructure thereby reducing traffic levels.

Development projects listed in Table 41, including Projects 1 through 3, 8 through 11, and 16 through 22, would contribute additional vehicles to the roadway and could contribute to traffic within the general Stockton area. Any development projects subject to CEQA and within the City’s

jurisdiction would be reviewed for impacts related to transportation and traffic using the same guidance from the City that was used for the proposed project, which takes into account regional conditions and requires traffic impact analyses for projects generating 100 or more vehicle trips during the a.m. or p.m. peak hours. Mitigation would be required to address any potential impacts. As discussed in Section 3.12, the proposed project would result in a significant impact related to VMT because it would not meet the City's threshold of 15% below the city-wide average. Therefore, the proposed project would contribute to cumulative VMT impacts.

Because the number of construction workers is relatively low and public transportation access is limited at the site, the proposed project is not expected to increase public transit use, and impacts would be less than significant. All of the projects listed in Table 41 would occur in areas with similarly low levels of public transportation service and are therefore not anticipated to have high demand for public transportation services. There are no existing or planned bicycle or pedestrian facilities within the study area. Thus, the proposed project would not interfere with existing or planned bicycle or pedestrian facilities. Any development projects required to undergo the CEQA process would be similarly reviewed for impacts related to public transportation services and bicycle and pedestrian facilities and would be required to address any potential impacts with mitigation. Because the proposed project does not include construction or operations that would affect alternative transportation plans, policies, or programs, or involve unsafe geometric design features, there would be no impact on these resources, which precludes the proposed project from cumulatively contributing impacts to these resources.

4.3.2.12.2 Conclusion

The proposed project would exceed applicable VMT thresholds, and when combined with the projects listed in Table 41 that would also generate vehicle travel within the region, the proposed project's contribution to cumulative VMT impacts would be cumulatively considerable. Although implementation of mitigation measure MM-TRA-1, which requires development of a TDM Plan, is a sufficient and feasible mitigation measure that ensures planning and developing public transit near the project site, it is unlikely that it would reduce VMT to 15% below the city-wide average. Therefore, transportation impacts related to VMT would be cumulatively considerable and impacts would be significant and unavoidable.

4.3.2.13 Tribal Cultural Resources

The geographic scope of the cumulative Tribal cultural resources analysis consists of the project site and the immediate vicinity at the Port.

4.3.2.13.1 Cumulative Impact Analysis

No Tribal cultural resources as defined in PRC 5020.1(k) have been identified in the project area. No Tribal cultural resources have been identified at the Port during CEQA review of any of the projects listed in Table 41.

The proposed project includes excavation into native soils; therefore, if archaeological materials or human remains are present in previously undisturbed native sediments, they could potentially be disturbed during construction. Although much of the area has been previously disturbed, construction activities (i.e., excavation, dredging, and land filling) associated with present and future Port projects, including Projects 1 through 3, 5, 8 through 11, 18, 21, and 26 would also include excavation into native soils and could also inadvertently disturb archaeological resources or human remains. These could also be considered Tribal cultural resources.

The proposed project requires implementing a plan for the inadvertent discovery of cultural resources and human remains if Tribal cultural resources are encountered during construction (MM-CUL-1). At a minimum, any construction associated with the projects listed in Table 41 that are subject to CEQA and include excavation would also be required to proceed in adherence with this guideline if the project would cause a substantial adverse change in the significance of a Tribal cultural resource, defined in PRC 21074, in addition to following all federal, state, and local regulations designed to protect cultural resources during construction.

4.3.2.13.2 Conclusion

Based on the analysis, it is concluded that the proposed project and projects listed in Table 41 would not have cumulatively considerable impacts on Tribal cultural resources.

5 Other Required Analyses

5.1 Unavoidable Significant Impacts

As required by CEQA Guidelines Sections 15126(b) and 15126.2(c), an EIR must describe any significant impacts that cannot be avoided, including those impacts that can be mitigated but not reduced to a less-than-significant level. Sections 3 and 4 of this DEIR describe the potential environmental impacts of the proposed project and identify mitigation measures to reduce impacts, where feasible. As presented in Section 3, construction and operation of the proposed project would result in exceedances of applicable air quality, GHG emissions, land use and planning, and transportation thresholds. These impacts are considered significant and unavoidable.

5.2 Significant Irreversible Environmental Changes

Pursuant to Sections 15126(c) and 15126.2(d) of the CEQA Guidelines, an EIR must consider any significant irreversible environmental changes that would be caused by the proposed project should it be implemented. Section 15126.2(d) of the CEQA Guidelines states the following:

> Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as a highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

The proposed project would require the use of resources such as water, aggregate, cementitious materials, fossil fuels, and nonrenewable construction materials. Resources that are committed irreversibly and irretrievably are those that would be used by a project on a long-term or permanent basis. Fossil fuels and energy would be consumed during project construction and operation. Fossil fuels, in the form of diesel fuel, oil, and gasoline, would be used to power construction equipment, vehicles, vessels, locomotives, and other operational equipment, such as the proposed ship unloader, conveyance system, and rail loadout handling systems. The use of these energy resources would be irretrievable and irreversible. Nonrecoverable materials and energy would be used during construction and operation; the amounts consumed would represent a long-term commitment of nonrenewable resources. Although the amount of materials and energy used by the proposed project would be limited and readily accommodated, these resources would nevertheless be unavailable for other uses.

The proposed project would intensify an established industrial use within an existing Port facility and would not provide access to previously inaccessible areas or otherwise commit surrounding properties to a new pattern of land use. Compliance with applicable hazardous materials, spill prevention, operational safety, and emergency response requirements would reduce the potential for environmental accidents that could cause irreversible environmental damage. Therefore, the proposed project would result in an irreversible commitment of materials and energy but would not result in other significant irreversible environmental changes.

5.3 Growth-Inducing Impacts

The CEQA Guidelines require an EIR to discuss the ways in which a proposed project could foster economic or population growth, or the construction of additional housing or facilities, either directly or indirectly, in the surrounding environment. This discussion includes an analysis of whether the proposed project would remove obstacles to population growth or trigger the construction of new community service facilities that could cause significant environmental effects. Specifically, Section 15126.2(e) of the CEQA Guidelines states the following:

> Discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth (a major expansion of a wastewater treatment plant might, for example, allow for more construction in service areas). Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. Also discuss the characteristic of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

5.3.1 Direct Impacts

A project would directly induce growth if it would directly foster population growth, construction of housing, or economic growth and/or if it would remove obstacles to growth. The proposed project would result in a net increase in activity from current baseline volumes of throughput at the project site, which would require additional vessel, truck, and rail calls, as outlined in Section 2.5.4.

The proposed project would not directly foster population growth because it does not include housing or plans for residential development. The proposed project would not foster construction of new housing because it does not include new infrastructure that would support the construction of housing.

The proposed project would enable the expansion of operations at Nevada Cement by updating and increasing the efficiency of the facility to better meet regional demand for cement and SCMs. This would foster economic growth at the facility and possibly in the local project area, but employment and job opportunities are not expected to significantly increase or affect regional economic growth in a substantial way.

The proposed project would not remove obstacles to growth because it does not include changes to housing policy, population growth projections, regional plans, or infrastructure that would alter the current housing or jobs market. Accordingly, although the proposed project would increase economic activity at an existing industrial facility, it would not directly induce substantial population growth, housing development, or other development that could result in significant physical environmental effects.

5.3.2 Indirect Impacts

A project would indirectly induce growth if it would foster economic or population-expanding activities that would lead to additional development and associated physical environmental effects. This could occur by overburdening existing facilities and eventually requiring the construction of new facilities or by otherwise encouraging or facilitating additional development.

The proposed project would not indirectly foster population growth because it would not result in a substantial increase in long-term employment that would generate demand for residential development to accommodate workers and their families. Therefore, the proposed project would not create demand for new or expanded public services or facilities to support population growth.

The proposed project also would not expand public services or infrastructure in a manner that would enable or facilitate population-expanding development, such as housing, beyond that already planned for the Port and surrounding area. The proposed project represents an intensification of an existing industrial use within an established Port facility. Although it would foster economic growth at Nevada Cement and the Port, it is not expected to foster substantial economic growth in the region or remove an existing constraint on regional development.

As previously stated, the proposed project would increase operational efficiency and throughput, which could lead to increased availability of cement and cementitious materials in the region. However, the facility would respond to existing and anticipated regional demand for these materials rather than independently create demand for new development. It would be speculative to conclude that increased throughput would cause or facilitate specific additional development. Accordingly, the proposed project would not indirectly induce substantial population growth, housing construction, or other development that could result in significant physical environmental effects.

6 Alternatives

CEQA requires that an EIR present a range of reasonable alternatives to the proposed project. Alternatives were developed based on comments received during public scoping, as well as Port staff consideration. Through the alternatives analysis process, the proposed project and two other action alternatives were found to meet most of the stated objectives. In addition, CEQA requires an EIR to consider the No Project Alternative, which does not meet the project objectives but is included for comparative purposes.

The following two alternatives to the proposed project were carried forward for impact analysis in this DEIR:

- **Alternative 1:** No Project Alternative
- **Alternative 2:** Berth 2 Improvements Alternative

Further details on these alternatives, and an evaluation of environmental impacts relative to the proposed project are provided below.

6.1 Requirements to Analyze Alternatives

CEQA Guidelines Section 15126.6 specifically requires that an EIR present a range of reasonable alternatives to a proposed project, or to the location of a project, that could feasibly attain most of the basic project objectives but that would avoid or substantially lessen any significant effects of a project. Pursuant to CEQA Guidelines Section 15126.6(e)(2), an EIR must also include an analysis of a No Project Alternative. The No Project Alternative analyzes what would be expected to occur if the proposed project were not approved. CEQA Guidelines Section 15126.6 also requires an evaluation of the comparative merits of the alternatives. An EIR is not required to consider alternatives that are infeasible. Pursuant to CEQA Guidelines Section 15126.6 (f)(1), "among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and whether the proponent can reasonably acquire, control, or otherwise have access to the alternative site (or the site is already owned by the proponent)." Although these factors do not present a strict limit on the scope of reasonable alternatives to be considered, they help establish the context against which "the rule of reason" is measured when determining an appropriate range of alternatives sufficient to establish and foster meaningful public participation and informed decision-making.

This DEIR provides sufficient information about each alternative selected for analysis to allow meaningful evaluation, analysis, and comparison with the proposed project. Significant effects of the alternatives are discussed, but in less detail than the significant effects of the project as proposed, consistent with the requirements of CEQA Guidelines Section 15126.6 (d).

The objectives of the proposed project, presented in Section 2.1.2, are used to evaluate the reasonableness and feasibility of each alternative. The following sections describe the alternatives considered to reduce impacts. The alternatives analysis only addresses resource areas for which the proposed project could cause potentially significant environmental impacts. The following resource areas were found to have no impact in the NOP/IS developed for the proposed project and therefore are not considered in the analysis: agriculture and forestry resources, mineral resources, population and housing, public services, recreation, and wildfire.

Potentially feasible alternatives were developed with consideration of avoiding or lessening the significant, and potentially significant, adverse impacts of the proposed project. As described in Sections 3.1 through 3.13, for the following resource areas the proposed project could result in significant or potentially significant impacts that would be reduced to less-than-significant levels with the incorporation of mitigation: Biological Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Hydrology, Noise, and Tribal Cultural Resources. Significant and unavoidable environmental impacts resulting from the proposed project were identified for the following resources: Air Quality, GHG emissions, and Transportation.

6.2 Alternatives Considered but Dismissed from Further Evaluation

In accordance with CEQA Guidelines Section 15126.6(c), determining what alternatives should be addressed in the DEIR, the Port considered several alternatives that would reduce the project lease area and limit track construction, which would minimize construction impacts. These alternatives, described in more detail below and included in the NOP/IS, was rejected for further consideration in the DEIR because they were determined to be not feasible and would not significantly reduce impacts.

6.2.1 Reduced Rail Loading and Storage Alternative

The Reduced Rail Loading and Storage Alternative would consist of similar modifications to the current lease, but within a smaller leased area (approximately 2 acres less) near Berth 3/4 and with limited rail track construction. This alternative would include construction of similar improvements at Berth 3/4 to increase the modernization and efficiency of operations, consistent with the proposed project. In-water work would occur similar to the proposed project. Upland improvements to the rail and truck loading systems, also similar to the proposed project, would be completed to handle cementitious material more efficiently and to accommodate potential increases in throughput. However, due to the reduced on-site area available for staging and operations associated with empty and full railcars, certain construction and operational elements of railcar activities would be eliminated, which may also reduce related emissions.

As a result of the smaller project site footprint, Nevada Cement would need to contract with the Port for off-site rail storage. This would require more frequent movements, smaller railcar units, and more

frequent on- and off-site switching to achieve projected throughput levels. This operational inefficiency would either shift a portion of railcar volumes to truck transport or reduce rail movements without replacement, thereby reducing throughput compared to the proposed project. These changes would result in increased vehicular trips to and from the terminal and associated increases in emissions.

Although the smaller project footprint and reduced track construction could reduce construction-related impacts to certain resource areas (e.g., biological resources, cultural resources, geology and soils, hazards and hazardous materials, noise, and Tribal cultural resources), these impacts would already be reduced to less-than-significant levels with mitigation under the proposed project. In addition, the operational changes required to maintain projected throughput would result in increased impacts to air quality, GHG emissions, and transportation due to increased vehicular movements.

Therefore, the *Reduced Rail Loading and Storage Alternative* would not be feasible, would not adequately reduce any significant impacts of the proposed project, and was therefore dismissed from further consideration in this DEIR.

6.2.2 Transit Access Alternative

As discussed in Section 3.7, the proposed project would require a 22.5% reduction in VMT to meet the threshold of 15% below the city-wide average. Although implementation of a TDM Plan would reduce the proposed project VMT, reduction of project VMT to 15% below the city-wide average is likely ambitious based on employee rideshares alone. Therefore, an alternative was considered to develop more transit access outside the facility. As discussed, there is a transit stop located at the intersection of Fresno Avenue and Sonora Street, 0.5 mile from the terminal supporting the San Joaquin Regional Transit District 515 bus, running between Downtown Transit Center and 8th Street and Pajaro Street in Stockton. However, although there are sidewalks in the immediate vicinity of the bus stop, the sidewalks end as the route approaches Port property and do not extend to the terminal gates. A pedestrian would need to cross active railroad tracks and the busy Harbor Road to access the terminal. An extended sidewalk and crossing system were therefore considered, as was a bus stop closer to the entrance.

The Department of Homeland Security enforces strict security measures that limit pedestrian access around ports to ensure safety and security. These restrictions are part of broader port security regulations aimed at protecting critical infrastructure and preventing unauthorized access. Port security regulations and protocols also discourage pedestrians and public transportation traversing through the Port. These regulations are meant to protect pedestrians from port activities as well as protect port and tenant workers and resources from unlawful acts. In addition, adding pedestrian crossings would lead to local queueing of trains and trucks along Harbor Road, which would increase

idling and air emissions. The local transit services are also largely inoperative at night, which limits the ability of shift workers to use public transit. Depending on the employee's origin, taking public transit may add significant time to their commute. These reasons all limit the options for expanding public transit access at the Port.

Therefore, the Transit Access Alternative would not be feasible and would not adequately reduce any significant impacts of the proposed project and was therefore dismissed from further consideration in this DEIR.

6.2.3 Reduced Throughput Alternative

Under the Reduced Project Alternative, imports of cementitious materials would be limited to approximately 1 million tons annually, or about one-half of the volume anticipated under the proposed project. This alternative would include many of the same facility improvements as the proposed project, including improvements to Berths 3/4, rail and truck loading infrastructure, and associated upland facilities. Construction activities would be generally similar to those of the proposed project. The principal difference is that this alternative would not include replacement of the existing ship unloader with a new unloader, nor would it include the associated material handling improvements. At the reduced import volumes, the revenue generated by terminal operations would not justify the substantial capital investment required for a new ship unloader. Accordingly, the projected levels of throughput needed to reliably satisfy future regional demand at the terminal would not likely be met.

Importantly, Nevada Cement does not control the size or type of vessels that call at the terminal. Vessel deployment is determined by shipping companies based on fleet availability, regional demand, and broader market logistics rather than the capabilities of a single receiving terminal. As a result, larger cement carriers would likely continue to call at the terminal despite the reduced import volumes. Without a modern ship unloader capable of efficiently serving these vessels, unloading operations would remain constrained by the limitations of the existing equipment, reducing operational efficiency and limiting the terminal's ability to reliably receive cargo from the vessels serving the market. This situation would result in similar vessel emissions as assumed in the proposed project, with more dust and less efficient unloading operations.

In addition, the assumed throughput under this alternative is substantially below the terminal's existing permitted capacity under its SJVAPCD permit. Constraining operations to a level significantly below the facility's authorized capacity would underutilize existing Port infrastructure and would not represent the efficient use of an established marine terminal. Because regional demand for cementitious materials is expected to continue regardless of this project's implementation, reducing imports at the Nevada Cement terminal would not eliminate the need for those materials. Instead, the product would likely be imported through other West Coast terminals and transported to end

users by alternative truck and rail networks, potentially resulting in longer transportation distances, increased system-wide emissions, and less efficient movement of goods. Therefore, this alternative would neither achieve the project's objectives nor provide a clear regional environmental benefit.

For these reasons, the Reduced Project Alternative was determined to be economically and operationally infeasible, would not satisfy the basic objectives of replacing the obsolete ship unloader and improving terminal efficiency, and was eliminated from further consideration.

6.3 Alternative 1: No Project Alternative

The No Project Alternative analyzes what would be expected to occur if the proposed project were not approved. Pursuant to CEQA Guidelines Section 15126.6(e)(2), the No Project Alternative shall "discuss the existing conditions at the time the NOP is published, or if no NOP is published, at the time the environmental analysis is commenced, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services."

Under the No Project Alternative, the Port would not issue a new lease, and no new improvements would be constructed at Berth 3 / 4 or to landside storage and truck or railcar loading systems by Nevada Cement. Dilapidated structures would remain, and the terminal's power system would not be upgraded to become more efficient. There would be no visible change to Nevada Cement operations.

Although throughput may increase over baseline levels as permitted, the general terminal operations would remain the same. However, because the existing Berth 2 ship unloader is nearing the end of its useful life, operations would occur in a less efficient manner over time and may be reduced over current operations at some time in the future. Because the proposed project's throughput projections are based on future regional market demand, it is assumed that another facility or facilities would accommodate the demand to bring more cementitious materials into the regional market under the No Project Alternative. However, the ultimate shipping and receiving destinations are unknown and therefore, a regional analysis is considered speculative and not included herein.

6.3.1.1 Aesthetics

The No Project Alternative would have no impact on aesthetics because there would be no construction or new equipment associated with the No Project Alternative. Operations would remain relatively the same and consistent with the general existing aesthetic of the area.

6.3.1.2 Air Quality

Air quality impacts resulting from implementation of the No Project Alternative have not been quantified; however, the No Project Alternative does not include any construction or new operations

associated with the proposed project. As described in Section 6.3, although terminal operations could continue under existing permits and throughput may increase above baseline levels, throughput would ultimately be constrained by the existing ship unloader and terminal infrastructure and would remain below the levels anticipated under the proposed project. Accordingly, emissions of criteria pollutants, GHGs, and TACs would be lower than those associated with the proposed project. Although operational emissions would continue under the No Project Alternative, the absence of construction and lower operational throughput would reduce emissions compared to the proposed project. Therefore, air quality impacts under the No Project Alternative would be less than those of the proposed project and are anticipated to be less than significant.

Regional demand for cementitious materials would continue under the No Project Alternative and could be met, in part, through other facilities. However, because the location, operational characteristics, and emissions associated with any such facilities are unknown, evaluating those potential impacts would be speculative and is beyond the scope of this analysis.

6.3.1.3 Biological Resources

The No Project Alternative would have no impact on biological resources because there would be no in-water or upland construction. Existing operations would continue at the terminal. Although throughput levels may increase over baseline, such operations would not impact biological resources.

6.3.1.4 Cultural and Historic Resources

The No Project Alternative would have no impact on cultural and historic resources because there would be no construction and no new operations associated with the No Project Alternative.

6.3.1.5 Energy

Energy consumption under the No Project Alternative has not been quantified; however, the No Project Alternative does not include any construction and would not include installation of updated, efficient, or lower-energy-use operational equipment, including a new unloader. As described in Section 6.3, although throughput levels may increase over baseline levels under existing permits, operations would ultimately be constrained by the existing terminal infrastructure and would remain below the throughput anticipated under the proposed project. Accordingly, overall operational energy consumption would be lower than under the proposed project because less material would be handled. However, the existing terminal equipment would continue to operate at a lower level of energy efficiency than the modernized equipment proposed by the project, resulting in greater energy consumption per ton of material handled. Because construction would not occur and total terminal activity would remain below proposed project levels, the No Project Alternative would result in lower overall energy consumption than the proposed project; however, continued reliance on an inefficient system would result in more energy per ton of product than the proposed project.

Therefore, impacts related to wasteful, inefficient, or unnecessary energy consumption would be less than significant.

Regional energy use may continue to increase under the No Project Alternative because the cementitious material would likely be shipped to the region through an alternative facility in order to meet demand. However, no such facility has been identified; therefore, an analysis is speculative.

6.3.1.6 Geology and Soils

The No Project Alternative would have no impact on geology and soils because there would be no construction or new operations associated with the No Project Alternative.

6.3.1.7 Greenhouse Gas Emissions

GHG impacts resulting from implementation of the No Project Alternative have not been quantified; however, the No Project Alternative does not include any construction, and operations and energy use would be less than the proposed project. As described in Section 6.3, although terminal operations could continue under existing permits and throughput may increase above baseline levels, throughput would ultimately be constrained by the existing ship unloader and terminal infrastructure and would remain below the throughput anticipated under the proposed project. Accordingly, GHG emissions associated with terminal operations would be lower than under the proposed project because less material would be handled and fewer associated truck, rail, and vessel trips would occur. Because no construction would occur and operational activity would remain below proposed project levels, the No Project Alternative would result in lower GHG emissions than the proposed project.

It is anticipated that throughout levels under the No Project Alternative may increase over baseline levels as permitted and as described in Section 6.3, but would remain limited by the capacity and efficiency of the existing unloader. Because the existing unloader is less efficient than the proposed new unloader, it would require more energy per unit of material handled. In addition, cementitious material would likely still be shipped to the region through an alternative facility, resulting in similar GHG emissions to the proposed project and more than existing baseline conditions. As a result, the total GHG emissions under the No Project Alternative would likely be comparable to those of the proposed project and greater than baseline conditions. Therefore, because GHG emissions under the No Project Alternative would likely increase over baseline emissions, impacts related to the generation of GHG emissions on the environment would be considered significant and unavoidable.

6.3.1.8 Hazards and Hazardous Materials

There would be no construction or new operations associated with the No Project Alternative. As discussed, throughput would increase over baseline levels but would likely not reach permit limits as the existing unloader would limit efficiency. Although increases in throughput could increase

exposure to cementitious material, existing safety and dust controls would reduce this potential and impacts would be considered less than significant.

6.3.1.9 Hydrology and Water Quality

The No Project Alternative would have no impact on hydrology and water quality because there would be no construction or new operations associated with the No Project Alternative.

6.3.1.10 Land Use and Planning

The No Project Alternative would have no impact on land use and planning because there would be no changes in land use or to the lease area of the project site under the No Project Alternative.

6.3.1.11 Noise

There would be no construction under the No Project Alternative and operations would be less than the proposed project. As described previously, operations would likely increase over baseline conditions under the No Project Alternative but would be less than expected under the proposed project. Noise levels would likely remain relatively unchanged (maybe nominally higher than baseline) under the No Project Alternative as equipment would remain the same. Therefore, impacts are considered less than significant.

6.3.1.12 Transportation

There would be no construction under the No Project Alternative and operations would be less than the proposed project. As described previously, operations and subsequently daily traffic levels would likely increase over baseline conditions under the No Project Alternative but would still be less than expected under the proposed project and would not lead to any conflicts with transportation plans or require any new intersection improvements. Although a VMT analysis was not completed for the No Project Alternative, the VMT analysis for the proposed project found that the proposed project-generated home-based-work VMT per employee is 4.1% higher than the respective city-wide average in the Baseline Year, and therefore, any increase in employment and/or car trips associated with the project would exceed VMT thresholds. Therefore, impacts on VMT would be considered significant and unavoidable.

6.3.1.13 Tribal Cultural Resources

The No Project Alternative would have no impact on Tribal cultural resources because there would be no construction or new operations associated with the No Project Alternative.

6.3.1.14 Utilities and Service Systems

The No Project Alternative would have no impact on utilities and service systems because there would be no construction or new operations associated with the No Project Alternative. As described previously, operations would likely increase above baseline conditions under the No Project

Alternative but would be less than expected under the proposed project. Although the existing unloader is less efficient than the proposed new unloader and would require more energy per unit of material handled, existing utility systems would be able to meet the anticipated demand..

6.4 Alternative 2: Berth 2 Improvements Alternative

The *Berth 2 Improvements Alternative* is based on the formerly proposed Lehigh Southwest Stockton Terminal Project (Port 2020) that was conceived by the former tenant at the project site, but that was not completed. As shown in Figure 6 of the *Lehigh Southwest Stockton Terminal Project Draft EIR* (Port 2020; available online at https://ceqanet.opr.ca.gov/Project/2019100510), it would include dock structure improvements and installation of modern, upgraded equipment at Berth 2 with no upgrades at Berth 3/4. The in-water and landside construction and operational activities would be like those of the proposed project but located at Berth 2, including an increase in operational efficiency and modernization. However, this alternative would restrict Nevada Cement unloading operations to Berth 2, which would reduce overall throughput. This alternative was considered to ascertain whether it could also reduce air and GHG emissions.

The *Berth 2 Improvements Alternative* would redevelop the facility to better accommodate material in a more efficient manner, and consists of: 1) Berth 2 rehabilitation; 2) ship unloader replacement; 3) rail trestle replacement; 4) barge loading component installation; and 5) upland facility improvements, including dome construction, truck loading station modifications, a new higher-capacity railcar loading station, demolition of structures and equipment, and replacement of existing bunker dust collectors.

During construction Berth 2 would be taken out of service for an extended period, requiring Nevada Cement to bring material to the terminal from alternative sources via rail or truck to maintain operations during construction.

The *Berth 2 Improvements Alternative* would install a new ship unloader which would allow faster unloading and thus operations at a higher capacity than existing conditions, thereby allowing increased throughput over time while minimizing dust emissions, reducing energy load, reducing berthing time, and allowing greater dock utilization. The existing rail support and narrow rail gauge at Berth 2 would be replaced to accommodate the increased weight of the new unloader and to meet current seismic design standards. The existing dock structure would be rehabilitated. A portion of an existing rail trestle that currently has limited weight-bearing capacity would be replaced so that the trestle could accommodate full railcars and an engine. Upland improvements to the rail and truck loading systems, similar to the proposed project, would also be completed to improve material handling efficiency.

Although these improvements would enhance operational efficiency and reduce unloading time, overall annual throughput would continue to be constrained by channel draft limitations, which restrict vessel size and loading. This is due to the fact that vessels calling on the terminal are large vessels that extend beyond Berth 2 and protrude into the Federal Ship Channel due to Berth 2's shorter length, making unloading less efficient than at Berth 3/4.

As a result, throughput under this alternative would be expected to increase relative to existing conditions, but would remain lower than the capacity of the proposed project due to berth and operational constraints. Operations under Alternative 2 would increase the terminal's existing cementitious material storage capacity from 94,900 tons to 130,100 tons. The expected maximum throughput under Alternative 2, based on the facility's physical capacity, is presented in Table 42. Although storage capacity would increase, this increase would primarily support operational flexibility and facilitate increased throughput over time. As shown, based on expected increases in market demand, throughput would increase over time to a maximum physical capacity in analysis year 15. Accordingly, the projected levels of throughput needed to reliably satisfy future regional demand at the terminal under Alternative 2 would not likely be met. In comparison, the proposed project would increase throughput capacity from 326,712 tons imported and 341,003 tons exported to 2,352,000 tons imported and 2,190,000 tons exported.

Table 42
Alternative 2 Expected Maximum Throughput Compared to Existing Levels (Annual)

Mode	Baseline (2023)	Alternative 2 Year 1	Alternative 2 Year 5	Alternative 2 Year 15
Truck Calls				
Total	15,781	21,706	37,037	42,500
Truck Shipping	12,400	20,806	35,185	39,722
Truck Receiving	3,381	900	1,852	2,778
Rail				
Railcars	331[a]	1,905[b]	3,810[c]	4,762[c]
Rail Calls	66	190	190	238
Vessels Calls				
Ships	9	21	39	48
Barges	0	0	0	40

Notes:
Calls are expressed in round trips. Each truck, train, and vessel call makes two trips: one trip in and one trip out.
Rail cargo is shipped via manifest rail.

a. Assumes an average of 5 cars per train
b. Assumes an average of 10 cars per train
c. Assumes an average of 20 cars per train

Baseline numbers are adjusted to 2023 levels.
Source: Port 2020

As shown in Table 42, throughput under Alternative 2 would result in a future increase in cementitious material beyond existing conditions, but under permitted limits. Under Alternative 2, Nevada Cement would need to apply for a new SJVAPCD PTO prior to operating for the equipment modifications and would be subject to SJVAPCD approval. Similar to what was described under the No Project Alternative, cementitious material deliveries would likely increase to the region based on demand, but distribution locations are unknown at this time.

Although channel draft limitations would continue to restrict vessel size and loading capacity, increased operational efficiency, improved unloading equipment, and the potential for increased vessel and barge calls would allow overall throughput to increase over time compared to existing conditions.

The Berth 2 Improvements Alternative would include operational impacts to air quality, GHG emissions, and transportation due to increased throughput—impacts that would similarly occur under the proposed project, but may be slightly reduced with Alternative 2.

6.4.1.1 Aesthetics

Under the Berth 2 Improvements Alternative, there would be a similar level of construction and equipment usage as under the proposed project. Operations would remain relatively the same as under the proposed project and consistent with the general aesthetic character of the area. Accordingly, the Berth 2 Improvements Alternative would have a less-than-significant impact on aesthetics.

6.4.1.2 Air Quality

Because construction activities under Berth 2 Improvements Alternative would be similar to the proposed project, construction emissions would be similar to the proposed project. Operationally, reduced throughput compared to the proposed project would result in reduced vessel, train, and truck trips, which would result in lower air emissions compared to the proposed project. Mitigation measures MM-AIR-1 through MM-AIR-6 would apply to the Berth 2 Improvements Alternative. As shown in Table 41, analysis year 15 throughput under Alternative 2 would be similar to proposed project levels in analysis year 5. Maximum daily throughput is limited by existing permit conditions and would be similar between Years 5 and 15. As shown in Tables 14 through 18, proposed project emissions exceed daily BAAD thresholds in analysis year 5 (ship transit only), and as shown in Tables 21 and 22, proposed project total concentrations for PM_{10} and $PM_{2.5}$ would exceed applicable AAQS in the SJVAPCD. Because the Year 15 Berth 2 Improvements Alternative throughput is similar to Year 5 proposed project throughput, emissions for Berth 2 Improvements Alternative would exceed daily BAAD thresholds, and total concentrations for PM_{10} and $PM_{2.5}$ would exceed applicable AAQS.

Therefore, emissions would also be considered **significant and unavoidable** for the Berth 2 Improvements Alternative.

6.4.1.3 Biological Resources

Because in-water construction would occur at a similar level under the Berth 2 Improvements Alternative and upland construction would remain generally the same as the proposed project, potential impacts to biological resources under the Berth 2 Improvements Alternative would be similar to those of the proposed project. Mitigation measures MM-BIO-1 through MM-BIO-5 would apply to the Berth 2 Improvements Alternative, which would be expected to reduce impacts to less-than-significant levels. Similar to the proposed project, there would be no impacts to biological resources associated with operations.

6.4.1.4 Cultural and Historic Resources

No historic resources were identified on the project site. Accordingly, the Berth 2 Improvements Alternative would have no impact on a historic resource. Mitigation measure MM-CUL-1 would also apply to the Berth 2 Improvements Alternative. All potential cultural and archaeological impacts of the Berth 2 Improvements Alternative would be expected to be unchanged from those of the proposed project and similarly would be less than significant with mitigation.

6.4.1.5 Energy

Energy consumption estimates under the Berth 2 Improvements Alternative have not been quantified; however, construction and operation would be similar to the proposed project with similar construction requirements, equipment usage, and installation of updated, efficient, or lower energy-use operational equipment, including a new unloader. Although overall energy consumption would increase relative to existing conditions because of increased throughput, replacement of the existing ship unloader and material handling equipment with modern, more energy-efficient systems would reduce the amount of energy required per ton of material handled compared to the existing facility. Although throughput levels would be less than the proposed project, overall energy use would be lower than the proposed project. Therefore, impacts related to wasteful, inefficient, or unnecessary energy consumption would similarly be less than significant.

Regional energy use may continue to increase under the Berth 2 Improvements Alternative because the cementitious material would likely be shipped to the region through an alternative facility in order to meet demand. However, no such facility has been identified; therefore, an analysis is speculative.

6.4.1.6 Geology and Soils

Construction would be similar for the Berth 2 Improvements Alternative as the proposed project, and operations would occur at a slightly reduced level. Potential impacts to geology and soils from the

Berth 2 Improvements Alternative would be generally similar to those of the proposed project. Mitigation measures MM-GEO-1, MM-GEO-2, MM-GEO-3, MM-BIO-2, and MM-BIO-3 would apply to the Berth 2 Improvements Alternative. Impacts would be expected to be less than significant with mitigation.

6.4.1.7 Greenhouse Gas Emissions

Because construction would be similar compared to the proposed project, construction GHG emissions under the Berth 2 Improvements Alternative would be similar to the proposed project. Operationally, reducing throughput would reduce vessel, train, and truck trips, which would reduce GHG emissions as compared to the proposed project, but there would still be a net increase in GHG emissions requiring mitigation consistent with regional and state climate plans. Mitigation measures MM-GHG-1, MM-GHG-2, MM-GHG-3, and MM-GHG-4 would apply to the Berth 2 Improvements Alternative. Similar to the proposed project, however, these measures would not result in significant reductions in GHG emissions, and Alternative 2 would not include sources or use of renewable energy or electrified equipment in line with regional climate plans. Therefore, GHGs would be considered **significant and unavoidable** for the Berth 2 Improvements Alternative.

6.4.1.8 Hazards and Hazardous Materials

Construction methods and equipment usage would be similar to the proposed project for the Berth 2 Improvements Alternative. Operations would occur at a slightly reduced level. Potential impacts to hazards and hazardous materials would be similar to the proposed project. Mitigation measures MM-BIO-2, MM-BIO-3, MM-GEO-1, MM-GEO-2, MM-GEO-3, and MM-HAZ-1 would apply to the Berth 2 Improvements Alternative. Impacts would be expected to be less than significant with mitigation.

6.4.1.9 Hydrology and Water Quality

Construction would be similar with the Berth 2 Improvements Alternative, and operations would occur at a slightly reduced level when compared to the proposed project. Potential impacts to hydrology and water quality from the Berth 2 Improvements Alternative would be generally similar to those of the proposed project. Mitigation measures MM-BIO-2, MM-BIO-5, MM-GEO-1, and MM-HAZ-1 would apply to the Berth 2 Improvements Alternative. Impacts would be expected to be less than significant with mitigation.

6.4.1.10 Land Use and Planning

The Berth 2 Improvements Alternative would have similar construction methods and scale as the proposed project and would continue similar operational uses to what is currently occurring at the project site, as with the proposed project. Thus, the Berth 2 Improvements Alternative would result in similarly less-than-significant impacts on land use and planning.

6.4.1.11 Noise

Construction activities would be similar to the proposed project under this alternative. Therefore, construction noise and vibration impacts under Berth 2 Improvements Alternative would be essentially the same as the proposed project and mitigation measures MM-NOI-1 and MM-NOI-2, both related to reducing pile driving impacts, would apply. Operations would be slightly reduced as compared to the proposed project; therefore, noise impacts would be expected to be slightly less than the proposed project's less-than-significant impacts in the long term.

6.4.1.12 Transportation

Because construction activities associated with the Berth 2 Improvements Alternative would be similar to the proposed project, impacts on transportation would be expected to be similar. Because throughput would increase over baseline conditions (albeit reduced as compared to the proposed project) under the Berth 2 Improvements Alternative, it is likely that daily trips will also increase. Although a VMT analysis was not completed for the No Project Alternative, the VMT analysis for the proposed project found that the proposed project-generated home-based-work VMT per employee is 4.1% higher than the respective city-wide average in the Baseline Year; therefore, any increase in employment and/or car trips associated with the project would exceed VMT thresholds. Therefore, Alternative 2 would also result in the same significant and unavoidable impact as the proposed project due to not meeting the VMT threshold of 15% below the city-wide average, even with implementation of mitigation measures MM-TR-1, which would be required. Therefore, impacts would be considered **significant and unavoidable.**

6.4.1.13 Tribal Cultural Resources

Construction would be similar to the proposed project for the Berth 2 Improvements Alternative. Operations would occur at a slightly reduced level. Potential impacts to Tribal cultural resources would be similar to the proposed project and mitigation measure MM-CUL-1 would apply. Impacts would be expected to be less than significant with mitigation.

6.5 Comparison of Alternatives

Table 43 provides a summary comparison of the potential environmental impacts after implementation of mitigation measures resulting from the proposed project and alternatives relative to the topics analyzed in this DEIR. As shown, the proposed project would result in greater impacts than the No Project Alternative and the Berth 2 Improvements Alternative. The Berth 2 Improvements Alterative would not meet the project objective to upgrade the existing Berth 3/4 dock and maximize operational efficiency.

Table 43
Comparison of Potential Impacts from Proposed Project and Alternatives (with Incorporation of Mitigation)

Resource	Proposed Project	Alternative 1: No Project Alternative	Alternative 2: Berth 2 Improvements Alternative
Aesthetics	Less-than-significant impact	No impact	Less-than-significant impact
Air Quality	**Significant and unavoidable impact**	Less-than-significant impact	**Significant and unavoidable impact**
Biological Resources	Less-than-significant impact	No impact	Less-than-significant impact
Cultural Resources	Less-than-significant impact	No impact	Less-than-significant impact
Energy	Less-than-significant impact	Less-than-significant impact	Less-than-significant impact
Geology and Soils	Less-than-significant impact	No impact	Less-than-significant impact
GHG Emissions	**Significant and unavoidable impact**	**Significant and unavoidable impact**	**Significant and unavoidable impact**
Hazards and Hazardous Materials	Less-than-significant impact	Less-than-significant impact	Less-than-significant impact
Hydrology and Water Quality	Less-than-significant impact	No impact	Less-than-significant impact
Land Use and Planning	Less-than-significant impact	No impact	Less-than-significant impact
Noise	Less-than-significant impact	No impact	Less-than-significant impact
Transportation	**Significant and unavoidable impact**	**Significant and unavoidable impact**	**Significant and unavoidable impact**
Tribal Cultural Resources	Less-than-significant impact	No impact	Less-than-significant impact

6.6 Environmentally Superior Alternative

Section 15126.6, subdivision (e)(2) of the CEQA Guidelines requires that if the No Project Alternative is identified as the Environmentally Superior Alternative, the EIR must also identify an Environmentally Superior Alternative among the other alternatives. The Environmentally Superior Alternative is the alternative expected to generate the fewest significant impacts. The Environmentally Superior Alternative may not be the alternative that best meets the objectives and underlying purpose of the proposed project. Therefore, CEQA does not require that the lead agency select the Environmentally Superior Alternative for approval (see CEQA Guidelines Sections 15042 to 15043).

As shown in Table 43, Alternative 1 (No Project Alternative) is the Environmentally Superior Alternative because it would avoid all significant impacts. However, the No Project Alternative would not meet any of the project objectives. Pursuant to CEQA Guidelines Section 15126.6(e)(2), the EIR also identifies the Environmentally Superior Alternative among the remaining alternatives. Among the alternatives carried forward in this DEIR, Alternative 2 (Berth 2 Improvements Alternative) is the Environmentally Superior Alternative because it would slightly reduce operational impacts to air quality and GHG emissions while still achieving some of the project objectives, such as to minimally increase operational efficiency and improve unloading equipment and to allow for increased vessel and barge calls to increase throughput over time.

However, Alternative 2 would not fully meet the project objectives, particularly those related to upgrading Berth 3/4 and maximizing operational and unloading efficiency. Accordingly, although Alternative 2 is environmentally superior among the action alternatives, it does not fully satisfy the purpose and need for the proposed project.

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