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DRAFT
Environmental Impact Report
Tracy Alliance Project
City of Tracy, San Joaquin County, California

State Clearinghouse Number 2020080524

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ACRONYMS AND ABBREVIATIONS

°C	degrees Celsius (Centigrade)
°F	degrees Fahrenheit
µg/m^3	micrograms per cubic meter
AAQA	Ambient Air Quality Analysis
AAQS	Ambient Air Quality Standards
AB	Assembly Bill
ABAG	Association of Bay Area Governments
ACE	Altamont Corridor Express
ACHP	Advisory Council on Historic Preservation
ACM	asbestos-containing material
ACP	Alternative Compliance Plan
ADA	Americans with Disabilities Act
ADL	Aerially Deposited Lead
ADT	Average Daily Traffic
AFY	acre-feet per year
AIA	Airport Influence Area
AIC	Archaeological Information Center
AICUZ	Air Installation Compatibility Use Zone
AIRFA	American Indian Religious Freedom Act
ALUC	Airport Land Use Commission
ALUCP	Airport Land Use Compatibility Plan
APCD	Air Pollution Control District
APE	Area of Potential Effect
APN	Assessor's Parcel Number
AQGGP	Air Quality Guidelines for General Plans
AQI	Air Quality Index
AQMD	Air Quality Management District
AQP	Air Quality Plan
ARB	California Air Resources Board
ARPA	Archaeological Resources Protection Act
ASR	Aquifer Storage and Recovery
AST	aboveground storage tank
ATCM	Airborne Toxic Control Measures
BAU	Business as Usual
BBID	Byron-Bethany Irrigation District

BCID	Banta-Carbona Irrigation District
BERD	Built Environment Resources Directory
bgs	below ground surface
BMO	Basin Management Objectives
BMP	Best Management Practice
BOD	Biochemical Oxygen Demand
BP	Before Present
BPS	Best Performance Standards
BRA	Biological Resources Assessment
BTU	British Thermal Unit
BVOC	biogenic volatile organic compound
CA FID	California Facility Inventory Database
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAL FIRE	California Department of Forestry and Fire Protection
Cal/EPA	California Environmental Protection Agency
Cal/OSHA	California Occupational Health and Safety Administration
CalEEMod	California Emissions Estimator Model
CALGreen	California Green Building Standards Code
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CAP	Clean Air Plan
CAPCOA	California Air Pollution Control Officers Association
CASGEM	California Statewide Groundwater Elevation Monitoring Program
CBC	California Building Standards Code
CCAA	California Clean Air Act
CCAP	Climate Change Action Plan
CCHSL	California Human Health Screening Level
CCIC	Central California Information Center
CCR	California Code of Regulations
CCTS	Central California Taxonomic System
CDF-FRAP	California Department of Forestry-Fire and Resource Assessment Program
CDFW	California Department of Fish and Wildlife
CDNA	California Digital Newspaper Archive
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Resource Conservation and Recovery Act
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System

CERS	California Environmental Reporting System
CESA	California Endangered Species Act
CFC	chlorofluorocarbon
CFL	compact fluorescent light
CFR	Code of Federal Regulations
cfs	cubic feet per second
CH	chlorinated herbicides
CH_4	methane
CHL	California Historical Landmarks
CHRIS	California Historical Resources Information System
CIP	Capital Improvement Program
CMP	Congestion Management Plan
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNG	compressed natural gas
CNPS	California Native Plant Society
CNPSEI	California Native Plant Society Electronic Inventory
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
COG	Council of Governments
CPHI	California Points of Historical Interest
CPT	cone penetration test
CPUC	California Public Utilities Commission
CREC	Controlled Recognized Environmental Conditions
CRHR	California Register of Historical Resources
CTR	California Toxics Rules
CUPA	Certified Unified Program Agency
CVP	Central Valley Project
CWA	Clean Water Act
dB	decibel
dBA	A weighted decibel
dBA/DD	dbA per each doubling of the distance
DCE	Design, Community & Environment
DET	Detention Basin
DGWTP	DeGroot Water Treatment Plant
DMC	Delta-Mendota Canal
DPM	diesel particulate matter

DTSC	California Department of Toxic Substances Control
DWR	California Department of Water Resources
EIA	United States Energy Information Administration
EIR	Environmental Impact Report
EOC	Emergency Operations Center
EPA	United States Environmental Protection Agency
ERNS	Emergency Response Notification System
ESCP	Erosion and Sediment Control Plan
ESL	Environmental Screening Level
EVA	Emergency Vehicle Access
FAA	Federal Aviation Administration
FAR	floor area ratio
FCS	FirstCarbon Solutions
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FMMP	Farmland Mapping and Monitoring Program
FTA	Federal Transit Administration
GAMAQI	Guide for Assessing and Mitigating Air Quality Impacts
GHG Rx	Greenhouse Gas Reduction Exchange
GHG	greenhouse gas
GMP	Groundwater Management Plan
gpd	gallons per day
gpm	gallons per minute
GPRS	Ground Penetrating Radar Services
GSA	Groundwater Sustainability Agency
GSP	Groundwater Sustainability Plan
GVWR	gross vehicle weight rating
GWh	gigawatt-hours
GWh/y	gigawatt-hours per year
GWP	global warming potential
HAZNET	Hazardous Waste Tracking System
HCD	California Department of Housing and Community Development
HCM	Highway Capacity Manual
HFC	hydrofluorocarbon
HHD	heavy-heavy-duty
HMBP	Hazardous Materials Business Plan
HMP	Hazard Mitigation Plan

HMUPA	Hazardous Materials Unified Program Agency
HOV/HOT	High Occupancy Vehicle/High Occupancy Toll
HRA	Health Risk Assessment
HRI	California Historic Resources Inventory
HSC	Health and Safety Code
HVAC	heating, ventilation, and air conditioning
HWCL	Hazardous Waste Control Law
IC/EC	Institutional Control/Engineering Control
ICC	International Code Council
IM	Improvement Measure
IPCC	Intergovernmental Panel on Climate Change
ISO	Independent System Operator
ITS	Intelligent Transportation Systems
JJWTP	John Jones Water Treatment Plant
kBTU	kilo-British Thermal Unit
LAFCo	Local Agency Formation Commission
LBP	lead-based paint
LCFS	Low Carbon Fuel Standard
L_{dn}	day/night average sound level
LED	light emitting diode
L_{eq}	equivalent sound level
LEV	Low Emission Vehicle
LI	Light Industrial
LID	Low Impact Development
L_{max}	maximum noise level
LOP	Local Oversight Program
LOS	Level of Service
LRA	Local Responsibility Area
LUST	Leaking Underground Storage Tank
M&I	Municipal and Industrial
MBTA	Migratory Bird Treaty Act
MCL	maximum contaminant level
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
mgd	million gallons per day
MIR	Maximally Impacted Sensitive Receptor
MLD	Most Likely Descendant
MM	Mitigation Measure

MMI	Modified Mercalli Intensity
MMRP	Mitigation Monitoring and Reporting Program
MMT	million metric tons
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
mpg	miles per gallon
mph	miles per hour
MRF	Tracy Material Recovery Facility and Solid Waste Transfer
MS4	Municipal Separate Storm Sewer System Permit
MSL	mean sea level
MSR	Municipal Services Review
MT	metric tons
MTC	Metropolitan Transportation Commission
MTS	Metropolitan Transportation System
MW	megawatt
MWELO	Model Water Efficient Landscape Ordinance
MWh	megawatt-hour
MXD	mixed-use development
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act
NAHC	Native American Heritage Commission
NEHRP	National Earthquake Hazards Reduction Program
NEI	Northeast Industrial
NEPA	National Environmental Policy Act
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NF_3	nitrogen trifluoride
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act
NO_2	nitrogen dioxide
NOC	Notice of Completion
NOP	Notice of Preparation
NO_x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NPPA	Native Plant Protection Act
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places

NSR	New Source Review
NTR	National Toxics Rules
NWIC	Northwest Information Center
O&M	Operations and Management
O_3	ozone
OCP	organochlorine pesticides
OEHHA	California Office of Environmental Health Hazard Assessment
OHP	California Office of Historic Preservation
ONAC	Federal Office of Noise Abatement and Control
OPR	Governor's Office of Planning and Research
OSHA	Occupational Safety and Health Administration
PAH	polycyclic aromatic hydrocarbons
PCB	polychlorinated biphenyl
pCi/L	picocuries per liter
PEA	Preliminary Endangerment Assessment
PFC	perfluorocarbon
PG&E	Pacific Gas and Electric Company
Phase I ESA	Phase I Environmental Site Assessment
PM_x	particulate matter
ppb	parts per billion
ppm	parts per million
PPV	peak particle velocity
PRC	Public Resource Code
PV	photovoltaics
PVC	polyvinyl chloride
RCRA	Resource Conservation and Recovery Act
REC	Recognized Environmental Condition
RL	reporting limits
RMP	Risk Management Plan
rms	root mean square
ROG	reactive organic gases
RPS	renewables portfolio standard
RTD	Regional Transit District
RTP	Regional Transportation Plan
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
RWQCB	Regional Water Quality Control Board
SARA	Superfund Amendments and Reauthorization Act
SCADA	Supervisory Control and Data Acquisition

SCP	Stormwater Control Plan
SCS	Sustainable Communities Strategy
SCWSP	South County Water Supply Project
SDMP	Storm Drainage Master Plan
SEMS	Standardized Emergency Management System
SF_6	sulfur hexafluoride
SFHA	Special Flood Hazard Area
SFPUC	San Francisco Public Utilities Commission
SGMA	Sustainable Groundwater Management Act
SJCOG	San Joaquin Council of Governments
SJMSCP	San Joaquin County Multi-Species Habitat Conservation and Open Space Plan
SJRRC	San Joaquin Regional Rail Commission
SLIC	Spills, Leaks, Investigation and Cleanup
SMAQMD	Sacramento Metropolitan Air Quality Management District
SO_2	sulfur dioxide
SOI	Sphere of Influence
South Coast AQMD	South Coast Air Quality Management District
South County Fire	South San Joaquin County Fire Authority
SPCC	Spill Prevention, Control, and Countermeasure
SR	State Route
SRA	State Responsibility Area
SRI	Solar Reflectance Index
SSJID	South San Joaquin Irrigation District
State Water Board	California State Water Resources Control Board
SWEEP	State Water Efficiency and Enhancement Program
SWMP	Storm Water Management Plan
SWP	State Water Project
SWPPP	Storm Water Pollution Prevention Plan
SWRU	Stored Water Recovery Unit
TAC	toxic air contaminants
TCM	transportation control measures
TDM	Transportation Demand Management
TDS	total dissolved solids
Tg	teragram
therms/y	therms per year
TIA	Transportation Impact Analysis
TMA	Transportation Management Association
TMDL	Total Maximum Daily Load

TOD	Transit Oriented Development
TPH	Total Petroleum Hydrocarbons
TSDF	Treatment, Storage and Disposal Facility
TSS	Total Suspended Solids
TUSD	Tracy Unified School District
TWMP	Tracy Wastewater Master Plan
UBC	Uniform Business Code
UCMP	University of California Museum of Paleontology
ULOP	Urban Level of Flood Protection
USACE	United States Army Corps of Engineers
USBR	United States Bureau of Reclamation
USC	United States Code
USDA	United States Department of Agriculture
USDOT	United States Department of Transportation
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UST	underground storage tank
UWMP	Urban Water Management Plan
V/C	volume to capacity ratio
Valley Air District	San Joaquin Valley Air Pollution Control District
VC	Village Center
VCP	Voluntary Cleanup Act
VMT	Vehicle Miles Traveled
VOC	volatile organic compound
WDO	Water Demand Offset
WDR	Waste Discharge Requirements
WSA	Water Supply Assessment
WSCP	Water Shortage Contingency Plan
WSD	Water Storage District
WSID	West Side Irrigation District
WSMP	Water System Master Plan
WUI	wildland urban interface
WWMP	Wastewater Master Plan
WWTP	Wastewater Treatment Plant
ZEV	Zero-Emission Vehicle

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EXECUTIVE SUMMARY

Purpose

This Draft Environmental Impact Report (Draft EIR) is prepared in accordance with the California Environmental Quality Act (CEQA) to evaluate the potential environmental impacts associated with the implementation of the Tracy Alliance Project (State Clearinghouse No. 2020080524). This document is prepared in conformance with CEQA (California Public Resources Code, Section 21000, et seq.) and the CEQA Guidelines (California Code of Regulations, Title 14, Section 15000, et seq.).

The purpose of this Draft EIR is to inform decision makers, representatives of trustee and responsible agencies, the public, and other interested organizations of the potential environmental effects that may result from implementation of the Tracy Alliance Project (proposed project). This Draft EIR describes potential impacts relating to a wide variety of environmental issues and methods by which these impacts can be feasibly mitigated or avoided.

Project Summary

Project Location

The project site is located at the northeast corner of Grant Line Road and Paradise Road (see Exhibit 2-2). The site is within unincorporated San Joaquin County land, adjacent to the northeastern city limits and within the City of Tracy's Sphere of Influence (SOI). The project site is directly east of the City's NEI Specific Plan boundary. The site is bound by I-205 to the north, California Avenue to the northeast, Grant Line Road to the south, and Paradise Road to the west.

Project Description

The proposed project consists of the development of up to 3,352,320 square feet of warehouse and distribution and related uses on a total of approximately 191.18 acres. The site consists of six parcels under ownership by three separate parties: the Tracy Alliance Group owns two parcels (totaling approx. 122.44 acres), Suvik Farms, LLC owns three parcels (totaling approx. 46.61 acres), and Zuriakat owns one parcel (approx. 22.17 acres).

Development on the Tracy Alliance parcels would consist of approximately 1,849,500 square feet of warehouse and distribution space located in three buildings (Building A, Building B, and Building C), as well as an approximately 12.44-acre stormwater basin with pump station that would be City-owned and managed. Approximately 12.51 acres of the Tracy Alliance land would be reserved to accommodate a portion of a planned interchange at Paradise Road and Interstate 205 (I-205). However, the potential impacts of constructing this future interchange would undergo a separate environmental review process pursuant to the CEQA and National Environmental Policy Act (NEPA), once funding is programmed and available and once the ultimate design of the interchange is finalized; accordingly, the construction of the interchange is not considered part of the proposed project. In addition to the proposed development on the Tracy Alliance parcels, the Suvik Farms Parcel and Zuriakat Parcel would both be developed with light industrial uses. The Suvik Farm Parcel

would have a maximum building square footage of 1,023,660 square feet on a land area of 2,047,320 gross square feet (50 percent Floor Area Ratio [FAR]) and the Zuriakat Parcel would have a maximum building square footage of 479,150 square feet on a land area of 958,320 gross square feet (50 percent FAR). The foregoing assumptions of maximum development capacity are based on the maximum allowable density per acre identified in the NEI Specific Plan.

The proposed project also includes demolition of 11 existing residential and agricultural buildings on approximately four acres located at the southwestern corner of the Tracy Alliance parcels, removal of existing trees and crops, construction of on- and off-site roadway improvements, and grading of approximately 500,000 cubic yards, which would be balanced on-site. Of the 500,000 cubic yards of material graded, approximately 300,000 cubic yards would occur on the Tracy Alliance parcels, approximately 150,000 cubic yards would occur in development of the Suvik Farms parcels, and approximately 50,000 cubic yards would occur in development of the Zuriakat parcel.. The proposed project would include ample landscaping consistent with all applicable City requirements; for example, in connection with the individual development proposal for the Tracy Alliance Parcels, the relevant site plan reflects approximately 110,000 square feet of landscaped areas. The proposed project would also include sufficient on-site parking for both vehicles and trailer spaces consistent with all applicable City requirements; for example, in connection with the individual development proposal for the Tracy Alliance Parcels, the relevant site plan reflects approximately 1,134 automobile parking spaces, and approximately 572 trailer parking spaces.

The proposed project would also include off-site roadway improvements, consisting of a westbound right turn lane at the intersection of Grant Line Road and North MacArthur Drive with a right-turn overlap of the signal phase as well as an additional second westbound left turn lane at the intersection of Chrisman Road and Eleventh Street.

The City of Tracy General Plan designates the project site as Industrial. As discussed more fully in this Draft EIR, the proposed project would be consistent with the planned industrial uses under the City's land use vision for the project site and vicinity. In connection therewith, the co-applicants for the proposed project are seeking an amendment to the Northeast Industrial (NEI) Specific Plan to incorporate the project site into its boundary (as well as any other conforming amendments necessary to ensure consistency). As an employment-generating use, the proposed project is expected to employ approximately 1,871 people.

Chapter 2, Project Description, provides a complete description of the proposed project.

Project Objectives

The quantifiable objectives of the Tracy Alliance Project include the following:

- Development of approximately 167 acres of industrial uses (building and parking areas and related improvements).
- Development of approximately 12.44 acres of public facilities (storm basin).
- Reserve approximately 12.51 acres for future planned interchange at Paradise Road and I-205.

- Build a maximum of 3,352,320 square feet of employment-generating industrial uses.

Additional qualitative objectives for the Tracy Alliance Project are as follows:

- **Employment Opportunities:** Provide for local and regional employment opportunities that take advantage of the project site's high level of accessibility, allow for the expansion of the City's economic base, help improve the jobs/housing balance, and reduce the commute for regional residents.
- **Transportation:** Provide an efficient circulation system, including reserving land for a future planned interchange at Paradise Road and I-205 (construction of the interchange would not be completed as part of the proposed project).
- **Public Facilities and Services:** Provide infrastructure and services to serve the proposed project that meet applicable City standards and integrate with existing and planned facilities.
- **Phasing:** Establish a logical phasing plan designed to ensure that each phase of development would include necessary public improvements required to meet applicable City standards.

Significant Unavoidable Adverse Impacts

The proposed project would result in the following significant unavoidable impacts:

- **Project-Level Conversion of Prime Farmland:** Although the proposed project is consistent with the site's General Plan designation and conversion of the project site to industrial use was envisioned as part of buildout under the General Plan, development consistent with the proposed project would result in the loss of agricultural land and would result in conversion of Prime Farmland to urban uses. The project applicant would be required to pay applicable Agricultural Mitigation Fees in connection with individual development proposals as implemented by Mitigation Measure (MM) AG-1. No other feasible mitigation is available to further reduce this impact. According, even with the payment of fees and adherence to the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP), the proposed project would result in significant and unavoidable impacts related to the conversion of Farmland as identified by Farmland Mapping and Monitoring Program (FMMP) mapping to non-agricultural use.

- **Cumulative Conversion of Prime Farmland:** Much of the Northeast Industrial (NEI) Specific Plan area consists of Prime Farmland that would be converted to non-agricultural uses with implementation of the relevant cumulative projects. Like the proposed project, any of the cumulative projects that would convert Prime Farmland to non-agricultural uses would pay the Agricultural Mitigation Fee. The development of the proposed project would result in the loss of approximately 188 acres of Prime Farmland, which would result in a project-level significant and unavoidable impact, which would also result in a cumulative considerable contribution to the cumulative impact that would be significant and unavoidable.

- **Project-Level Impact Related to Implementation of the Applicable Air Quality Plan:** The proposed project is consistent with the site's General Plan designation which means the

proposed industrial use was accounted for in the Air Quality Plan (AQP) land use projections. However, the proposed project could create a localized violation of State or federal air quality standards, significantly contribute to cumulative non-attainment pollutant violations, and expose sensitive receptors to substantial pollutant concentrations. The proposed project would be required to implement MM AIR-1 through MM AIR-4; however, because full implementation of the mitigation cannot be guaranteed due to potential technical and/or financial infeasibility, the proposed project's potentially significant impact is conservatively identified as significant and unavoidable. Therefore, the proposed project is inconsistent with Criterion 1 of the AQP even after the incorporation of mitigation. The impact would be significant and unavoidable.

- **Project-Level Impact Related to Cumulatively Considerable Net Increase of reactive organic gases (ROG) and carbon monoxide (CO) During Construction, and ROG and oxides of nitrogen (NOX) During Operation:** The construction schedule for the proposed project assumed that none of the three project phases would overlap. In this scenario, after the incorporation of MMs AIR-1a and AIR-1b, construction of the proposed project may not exceed the San Joaquin Valley Air Pollution Control District (Valley Air District) daily emission screening levels for an Ambient Air Quality Analysis (AAQA), pursuant to District Rule 2201. However, the potential remains for project phases to be constructed concurrently. If the three phases of construction occur concurrently, emissions of ROG and CO would exceed the Valley Air District's significance thresholds if all three project phases were constructed concurrently. As such, this impact would remain significant and unavoidable after implementation of identified mitigation.

  During operation, unmitigated emissions would exceed Valley Air District thresholds of significance for ROGs and NO_X. Therefore, MM AIR-1c and MM AIR-1d would be required to mitigate operational emissions to below Valley Air District thresholds. However, the full implementation of MM AIR-1c and MM AIR-1d cannot be guaranteed during project operation; therefore, the reasonable worst-case operational emissions would exceed the Valley Air District's significance thresholds for ROG and NO_X and this impact would remain significant and unavoidable.

- **Project-Level Impact Related to Exposing Sensitive Receptors to Substantial Pollutant Concentrations:** During construction, if all three project phases were constructed concurrently, the proposed project would expose sensitive receptors to CO and diesel particulate matter (DPM) emissions that exceed applicable thresholds even with mitigation incorporated. During operation, the proposed project would expose sensitive receptors to ROGs, NO_X, and DPM levels that exceed applicable thresholds even after incorporation of identified mitigation resulting in a significant and unavoidable impact.

- **Cumulative Air Quality Impact:** The proposed project would exceed the identified construction or operational significance thresholds; therefore, its emissions would also be cumulatively considerable.

- **Project-Level Vehicle Miles Traveled (VMT) Impact:** The proposed project's VMT would result in a significant impact given that the location-based, service-estimated average one-way trip length for automobile trips generated by the proposed project is more than 20 miles, and the proposed project would be in excess of 15 percent threshold required to mitigate VMT impacts. The proposed project would be required to implement MM TRANS-1, which would require the applicant to prepare a project-specific Transportation Demand Management (TDM Program in consultation with the City of Tracy) to reduce project-generated VMT. However, even with incorporation of MM TRANS-1, which would partially reduce VMT impacts, the impact would remain significant and unavoidable.

- **Cumulative VMT Impact:** Cumulative projects would be required to comply with applicable State and local laws and regulations that seek to reduce VMT. If found to result in significant VMT impacts, each cumulative project would be required to implement site-specific TDM measures that would reduce VMT and encourage alternative modes of transportation, such as transit, bicycle use, and walking. Cumulative projects would also be required to include facilities based on future transportation studies prepared for that project and pay into the City's VMT banking program once established. However, even with implementation of all available feasible mitigation, the cumulative VMT would still exceed City standards and would be significant and unavoidable. In addition, as described in Impact TRANS-1, the proposed project's impacts would be significant and unavoidable even with the implementation of mitigation. As such, the proposed project would have a cumulatively considerable contribution to a cumulative impact and in conjunction with other projects, would have a significant and unavoidable impact with respect to VMT. The proposed project's contribution would be cumulatively considerable.

Summary of Project Alternatives

Below is a summary of the alternatives to the proposed project considered in Section 6, Alternatives to the proposed project.

No Project (No Build) Alternative

Under this alternative, development of the project site would not occur, and the project site would remain in its current existing condition.

Outside Storage Allowable Use Alternative The Outside Storage Allowable Use Alternative contemplates a reduction in building square footages, an increase in outside storage areas, and the preservation of 25 percent of the existing agricultural operations (approximately 48 acres). This alternative contemplates a combination of "Equipment Storage Yards," which is a Permitted Use under the NEI Specific Plan and/or "Building Materials Sales, Lumberyards (outside storage)," which is a Conditional Use permitted under the NEI Specific Plan. The project site would be developed in such a way to protect some of the on-site Prime Farmland by reducing the overall footprint of the developed areas. The outside storage uses would require less building coverage and the number of employees would be reduced as compared to the proposed project.

Agricultural Protection Alternative

Under this alternative, the proposed project would be developed in such a way as to protect some of the on-site Prime Farmland by reducing the overall footprint of the developed areas while maintaining a buffer between existing units along California Avenue. The northern half (approximately 11 acres) of the Zuriakat Parcel would remain in agricultural production.

Areas of Controversy

Pursuant to CEQA Guidelines Section 15123(b), a summary section must address areas of controversy known to the lead agency, including issues raised by agencies, other interested organizations, and the public, and it must also identify issues to be resolved, including the choice among alternatives and whether or how to mitigate the significant effects.

A Notice of Preparation (NOP) for the proposed project was issued on August 28, 2020. The NOP describing the proposed project and issues to be addressed in the EIR was distributed to the State Clearinghouse, responsible and trustee agencies, and other interested organizations, and the public for a 30-day public review period extending from August 28, 2020 through September 30, 2020. The NOP identified the potential for significant impacts on the environment related to the following topical areas:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Public Services
- Transportation
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire

Disagreement Among Experts

This Draft EIR contains substantial evidence to support all the conclusions presented herein. It is possible that there will be disagreement among various parties regarding these conclusions, although the City of Tracy is not aware of any disputed conclusions at the time of this writing. Both CEQA and case law applying the statutory requirements under CEQA provide the standards for treating disagreement among experts. Where evidence and opinions conflict on an issue concerning the environment, and the lead agency knows of these controversies in advance, the EIR must acknowledge the controversies, summarize the conflicting opinions of the experts, and include sufficient information to allow the public and decision makers to make an informed judgment about the environmental consequences of the proposed project. However, the lead agency retains the discretion to elect to rely on expert(s) retained in connection with the preparation of the EIR and related technical analyses, and a decision to do so should be incorporated into the relevant CEQA findings.

Potentially Controversial Issues

Based on NOP comments, below is a list of potentially controversial issues that may be raised during the public review and hearing process of this Draft EIR:

- There is a potential for the proposed project to result in the release of hazardous wastes/substances. Soil sampling, surveying of buildings that would be demolished for lead, and evaluation of former agricultural lands are recommended.
- The proposed project would be located in Prime Agricultural Land.
- Potential impacts to unknown cultural resources on the project site will need to be evaluated.
- Consistency with the San Joaquin Council of Governments (SJCOG) will need to be evaluated.
- Additional truck traffic could have significant cumulative health effects on nearby sensitive receptors.
- Additional truck traffic could have significant noise impacts on nearby sensitive receptors.
- Additional VMT would affect the surrounding community.
- The proposed project must comply with RWQCB regulations, policies, and permits.
- The proposed project must comply with the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP).

It is also possible that evidence will be presented during the 45-day, statutory Draft EIR public review period that may create disagreement. Decision makers would consider this evidence during the public hearing process.

As noted above, in rendering a decision on a project where there is disagreement among experts, the decision makers are not obligated to select the most environmentally preferable viewpoint. Decision makers are vested with the ability to choose whatever viewpoint is preferable, based on substantial evidence in the record, and need not resolve a dispute among experts. In their proceedings, decision makers must consider comments received concerning the adequacy of the Draft EIR and address any objections raised in these comments. However, decision makers are not obligated to follow any directives, recommendations, or suggestions presented in comments on the Draft EIR, and can certify the Final EIR by choosing to rely on experts retained in connection with the preparation of the EIR without needing to resolve disagreements among experts.

Public Review of the Draft EIR

Upon completion of the Draft EIR, the City of Tracy filed a Notice of Completion (NOC) with the State Office of Planning and Research to begin the public review period (Public Resources Code, Section 21161). Concurrent with the NOC, this Draft EIR has been distributed to responsible and trustee agencies, other affected agencies, surrounding cities, and interested organizations, as well as all parties requesting a copy of the Draft EIR in accordance with Public Resources Code 21092(b)(3). During the public review period, the Draft EIR, including the technical appendices, is available for review at the City of Tracy offices and the Tracy Library. The address for each location is provided below:

City of Tracy
Development Services Department
333 Civic Center Plaza
Hours:
Monday-Thursday: 8:00AM-6:00PM
Friday: 8:00AM-5:00PM

Tracy Branch Library
20 East Eaton Avenue
Tracy, CA 95376

Agencies, interested organizations, and members of the public have the opportunity to comment on the Draft EIR during the 45-day public review period. Written comments on this Draft EIR should be addressed to:

Victoria Lombardo, Senior Planner
Development Services Department
333 Civic Center Plaza
Tracy, CA 95376
Phone: 209.831.6428

Submittal of electronic comments in Microsoft Word or Adobe PDF format is encouraged. Upon completion of the public review period, written responses to all significant environmental issues raised will be prepared and made available for review by the commenting agencies at least 10 days prior to the public hearing before the City of Tracy on the proposed project, at which the certification of the Final EIR will be considered. Comments received and the responses to comments will be included as part of the record for consideration by decision makers for the proposed project.

Executive Summary Matrix

Table ES-1 below summarizes the impacts, mitigation measures, and resulting level of significance after mitigation for the relevant environmental issue areas evaluated for the proposed project. The table is intended to provide an overview; narrative discussions for the issue areas are included in the corresponding section of this EIR. Table ES-1 is included in the EIR as required by CEQA Guidelines Section 15123(b)(1).

Table ES-1: Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Section 3.1—Aesthetics			
Impact AES-1: The proposed project would not have a substantial adverse effect on a scenic vista.	Less Than Significant	No mitigation is necessary.	Less Than Significant
Impact AES-2: The proposed project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.	Less Than Significant	No mitigation is necessary.	Less Than Significant
Impact AES-3: The proposed project is in an urbanized area. The proposed project would not conflict with applicable zoning and other regulations governing scenic quality.	Less Than Significant	No mitigation is necessary.	Less Than Significant
Impact AES-4: The proposed project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.	Less Than Significant	No mitigation is necessary.	Less Than Significant
Section 3.2—Agriculture and Forestry Resources			
Impact AG-1: The project would convert Farmland pursuant to the FMMP, to non-agricultural use.	Potentially Significant	**MM AG-1: Payment of Agricultural Mitigation Fees** At the time of issuance of building permits for each individual development proposal, the relevant applicant(s) for the subject development proposal shall pay the applicable Agriculture Mitigation Fee in accordance with Chapter 13.28 of the Municipal Code.	Significant and Unavoidable

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact AG-2: The project would not conflict with existing zoning for agricultural use, or a Williamson Act contract.	Less Than Significant	No mitigation is necessary.	Less Than Significant
Impact AG-3: The project would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production.	No impact	No mitigation is necessary.	No impact
Impact AG-4: The project would not result in the loss of forest land or conversion of forest land to non-forest use.	No impact	No mitigation is necessary.	No impact
Impact AG-5: The project would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.	Less Than Significant	No mitigation is necessary.	Less Than Significant
Cumulative Impact	Potentially Significant Impact	MM AG-1	Significant and Unavoidable
Section 3.3—Air Quality			
Impact AIR-1: The proposed project could conflict with or obstruct implementation of the applicable air quality plan.	Potentially Significant Impact	**MM AIR-1a**: **NO_X Reduction Measures** Prior to the issuance of grading or building permits for each individual development proposal within the project site, the relevant applicant for each development proposal shall provide documentation to the City of Tracy demonstrating the following NO_X reduction measures would be adhered to during construction activities for the relevant development proposal: • For all construction equipment and vehicles used during project construction that are equal to or	Significant and Unavoidable

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		greater than 250 horsepower, the contractor shall use construction equipment and vehicles that meet the United States Environmental Protection Agency (EPA) Tier 4 Final engine standards; • For all construction equipment and vehicles used during project construction that are less than 250 horsepower, the contractor shall use electric construction equipment and vehicles to the extent feasible, with the exception of handheld generator sets; and • All generator sets utilized during project construction shall be limited to 5 horsepower and shall only be used to power handheld power tools. The construction contractor shall maintain reasonable records concerning its efforts to comply with this requirement, including equipment lists. Documentation that each relevant applicant provides to the City shall include, but is not limited to, equipment type, equipment manufacturer, equipment identification number, engine model year, engine certification (Tier rating), horsepower, and engine serial number. **MM AIR-1b: "Super-Compliant" Architectural Coatings** Prior to the issuance of grading or building permits for each individual	

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		development proposal within the project site, the relevant applicant for each development shall provide the City with documentation demonstrating the use of "Super-Compliant" architectural coatings, as defined by the South Coast Air Quality Management District (South Coast AQMD), during construction of the proposed project. "Super-Compliant" architectural coatings, as defined by the South Coast AQMD, are paints which do not exceed 10 grams of reactive organic gas (ROG) per liter of paint. **MM AIR-1c**: **"Zero-VOC" Consumer Products** The consumer products purchased by the building occupant(s) or by the cleaning business contracted by the building occupant(s) for on-site use shall consist of water-based or "zero volatile organic compound [VOC]" consumer products, to the maximum extent feasible. "Consumer products," as referred to in this mitigation measure, shall include detergents, cleaning compounds, polishes, and floor finishes. "Consumer products," as referred to in this mitigation measure, shall not include parking lot degreasers, architectural coatings, pesticides, or fertilizers. **MM AIR-1d**: **Clean Truck Fleet** Prior to the issuance of the certificate of occupancy for each individual development proposal within the project	

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		site, the relevant applicant for the subject individual development proposal shall provide the City with reasonable documentation demonstrating the use of a clean truck fleet that meets the California Air Resources Board's adopted 2013 Optional Low-NO_X Standard of 0.02 gram of nitrogen oxide (NO_X) per brake horsepower hour for all heavy-duty trucks during operation of the proposed project, to the maximum extent feasible. If the relevant applicant does not own the truck fleet that will be used during operation of the subject individual development, the relevant applicant shall provide the City with reasonable documentation from the truck fleet owner demonstrating that trucks utilized for operation of the subject individual development will meet the California 2013 Optional Low-NO_X Standard, to the maximum extent feasible. If any change occurs where a new truck fleet is utilized during operation of the subject individual development, the relevant applicant shall provide the City with reasonable documentation demonstrating that the new truck fleet meets the California 2013 Optional Low-NO_X Standard of 0.02 gram per brake horsepower hour, to the maximum extent feasible.	
Impact AIR-2: The proposed project could result in a cumulatively considerable net increase of any criteria pollutant for which the region is in nonattainment under an	Potentially Significant	MM AIR-1a through MM AIR-1d	Significant and Unavoidable

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
applicable federal or State ambient air quality standard.			
Impact AIR-3: The proposed project could expose sensitive receptors to substantial pollutant concentrations.	Potentially Significant	MM AIR-1d	Significant and Unavoidable
Impact AIR-4: The proposed project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.	Less Than Significant	No mitigation is necessary.	Less than Significant
Cumulative Impact	Potentially Significant Impact	MM AIR-1a through MM AIR-1d	Significant and Unavoidable
Section 3.4—Biological Resources			
Impact BIO-1: The project could have a substantial adverse effect, either directly or through habitat modifications, on 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 United States Fish and Wildlife Service.	Potentially Significant	**MM BIO-1a: Song Sparrow and Tricolored Blackbird Mitigation** Implementation of the following avoidance and minimization measures would avoid or minimize potential effects to song sparrow and tricolored blackbird as a result of project implementation within the Zuriakat parcel in and adjacent to the project site. These measures shall be implemented for construction work that occurs during the nesting season (February 1 through August 31): • If construction or habitat removal is proposed during the breeding/nesting season (typically February 1 through August 31), a qualified Biologist shall conduct pre-construction surveys for song sparrow and tricolored blackbird within potential nesting habitat of the construction area, (special attention should be paid to the cattail marsh within the Zuriakat parcel) including a	Less Than Significant

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		500-foot survey buffer for tricolored blackbird and a 75-foot survey buffer for song sparrow, no more than 7 days prior to the start of ground disturbing activities in the construction area. If no active nests are detected within the construction area on the project site or within the relevant buffer survey area, then no additional measures are required. • If an active nest is located during pre-construction surveys, the California Department of Fish and Wildlife (CDFW) (as appropriate) shall be notified (as appropriate) regarding the status of the nest. A setback of 500 feet (for tricolored blackbird) and 75 feet (for song sparrow) shall be established and maintained during the nesting season for the period encompassing nest building and continuing until fledglings leave nests. This setback applies whenever construction or other ground-disturbing activities must begin during the nesting season in the presence of nests which are known to be occupied. Furthermore, construction activities shall be restricted in the construction area as necessary to avoid disturbance of the nest until it is abandoned, or a qualified Biologist deems disturbance potential to be minimal. Restrictions shall include consultation with a qualified Biologist to determine appropriate buffer zones or alteration	

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		of the construction schedule in the relevant area. - A qualified Biologist shall delineate the buffer using nest buffer signs, environmentally sensitive area fencing, pin flags, and/or flagging tape. The buffer zone shall be maintained around the active nest site(s) until the young have fledged and are foraging independently. **MM BIO-1b: Swainson's Hawk** **Foraging:** Prior to any activities that would result in ground disturbance to the project site, the relevant applicant(s) for the subject development on any portion of the project site shall each ensure **c**overage of the relevant portion(s) of the project site under the SJMSCP and pay the applicable fee purchase adequate mitigation through the SJMSCP for 140.59 acres of potential foraging habitat (recommended) or alternatively provide applicant-responsible compensatory mitigation at a 1:1 ratio (such as procurement of credits through a mitigation bank or dedicated of a conservation easement). **Nesting:** The following measures shall be implemented for construction work during the nesting season (February 1 through August 31): • Implementation of the following avoidance and minimization measures would avoid or minimize potential	

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		effects to Swainson's hawk as a result of project implementation and adjacent to the project site. These measures shall be implemented for construction work that occurs during the nesting season (February 1 through August 31): - If construction or habitat removal is proposed during the breeding/nesting season (typically February 1 through August 31), a qualified Biologist shall conduct pre-construction surveys for Swainson's hawk within the construction area, (special attention should be paid to trees with past recorded occurrences) including a 0.5 mile foot survey buffer, no more than 7 days prior to the start of ground disturbing activities in the construction area. If no active nests are detected within the construction area site or within the buffer survey area, then no additional measures are required. - If active Swainson's hawk nests are found within the construction area or the 0.5 mile survey buffer of the project site, a qualified Biologist shall determine what nest avoidance buffers may be necessary so that construction related activities do not cause nest abandonment.	

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		The avoidance buffer shall be submitted to the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) for approval. The qualified Biologist shall monitor construction activities to ensure construction activities do not result in adverse effects to the nest, fledglings, or adults. The Biologist shall submit a memorandum documenting construction compliance to the appropriate agencies. **MM BIO-1c**: **Burrowing Owl** • A qualified Biologist shall conduct a pre-construction survey no later than 30 days prior to commencement of any ground-disturbing construction activities on the construction area. The survey shall be conducted in accordance with the *Staff report on Burrowing Owl Mitigation.*[1] All suitable habitats within the construction area site and adjacent buffer (within 500 feet) shall be surveyed. If no burrowing owl are detected during the surveys, then no additional measures are required. • If pre-construction surveys during the breeding season (February 1- August 31) detect active burrows within the	

[1] California Department of Fish and Wildlife (CDFW). 2012. Staff Report on Burrowing Owl Mitigation. March 7. Website: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83843&inline=true. Accessed on April 29, 2020.

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		construction area or near the adjacent buffer survey area site, a qualified Biologist shall establish and delineate an appropriate buffer zone around the nest until the breeding season is over as determined by the Biologist. Buffer areas shall be established using the guidelines within the *Staff report on Burrowing Owl Mitigation*. • If pre-construction surveys detect active burrows during the non-breeding season (September 1- January 31) the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) allows for eviction or passive relocation of owls. A passive relocation plan shall be prepared and submitted to SJMSCP for approval. **MM BIO-1d: San Joaquin Kit Fox Measures to protect San Joaquin kit fox shall consist of the following:** • A qualified Biologist shall conduct a pre-construction survey of the construction area and a 200-foot buffer, between 14 and 30 days prior to the commencement of ground disturbance. If the surveys do not identify any San Joaquin kit fox activity or locate any potential dens, then no further measures are necessary. • If the survey identifies potential dens (potential dens are defined as burrows at least 4 inches in diameter that open up within 2 feet), den entrances shall be dusted for 3 calendar days to	

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		register track of any San Joaquin kit fox present. If no San Joaquin kit fox activity is identified, potential dens may be destroyed. If San Joaquin kit fox activity is identified, then dens shall be monitored by a qualified Biologist to determine if occupation is by an adult fox only or is a natal den (natal dens usually have multiple openings). • If the den is occupied by an adult only, the den may be destroyed when the adult fox has moved or is temporarily absent. If the den is a natal den, a buffer zone of 250 feet shall be maintained around the den until the Biologist determines that the den has been vacated. Where San Joaquin kit fox are identified, the provisions of the United States Fish and Wildlife Service's published *Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance*[2] shall apply (except that preconstruction survey protocols shall remain as established in this paragraph). These standards include provisions for educating construction workers regarding the San Joaquin kit fox and keeping heavy equipment operating at safe speeds.	

[2] United States Fish and Wildlife Service (USFWS). 1999. Standardized recommendations for protection of the San Joaquin Kit Fox Prior to or during ground disturbance. Website: https://www.fws.gov/ventura/docs/species/protocols/sjkf/sanjoaquinkitfox_protection.pdf. Accessed April 29, 2020.

		MM BIO-1e: **Migratory Birds** • To prevent significant impacts to Migratory Bird Treaty Act (MBTA)-protected birds, nesting raptors, and their nests, removal of trees shall be limited to only those necessary to feasibly construct the proposed project as shown on the individual development plans approved by the City pursuant to the mapping and/or development review process. • If any tree removal is necessary, then it should occur outside the nesting season between September 1 through January 31 to the extent feasible. If trees cannot feasibly be removed outside the nesting season, preconstruction surveys shall be conducted no more than 7 days prior to tree removal to verify the absence of active nests. • If an active nest is located during pre-construction surveys, the United States Fish and Wildlife Service (USFWS) and/or the California Department of Fish and Wildlife (CDFW) (as appropriate) shall be notified regarding the status of the nest. Construction activities shall be restricted in the construction area as necessary to avoid disturbance of the nest until it is abandoned, or the agencies deem disturbance potential to be minimal. Restrictions shall consist of the include establishment of exclusion zones (no ingress of personnel or equipment at a minimum radius of 100 feet around an	

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		active raptor nest and an appropriate radius around an active migratory bird nest depending on the species) or alteration of the construction schedule. • A qualified Biologist shall delineate the buffer using nest buffer signs, environmentally sensitive area fencing, pin flags, and/or flagging tape. The buffer zone shall be maintained around the active nest site(s) until the young have fledged and are foraging independently. **MM BIO-1f**: **Roosting Bats** • A qualified wildlife Biologist shall conduct surveys for special-status bats during the appropriate time of day to maximize detectability to determine if bat species are roosting near the construction area no less than 7 days and no more than 14 days prior to beginning ground disturbance and/or construction. Survey methodology may include visual surveys of bats (e.g., observation of bats during foraging period), inspection for suitable habitat, bat sign (e.g., guano), or use of ultrasonic detectors (Anabat, etc.). • Visual surveys shall include trees within 0.25 mile of project construction activities. Not more than two weeks prior to building demolition, the Tracy Alliance parcel applicants for development on any project parcel, shall ensure that a qualified Biologist (i.e., one familiar with the identification	

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		of bats and signs of bats) survey buildings proposed for demolition for the presence of roosting bats or evidence of bats. If no roosting bats or evidence of bats are found in the structure, demolition may proceed. If the Biologist determines or presumes bats are present (if there are site access issues or structural safety concerns), the Biologist shall exclude the bats from suitable spaces by installing one-way exclusion devices. After the bats vacate the space, the Biologist shall close off the space to prevent recolonization. Building demolition of the subject structure shall only commence after the Biologist verifies seven to 10 days later that the exclusion methods have successfully prevented bats from returning. To avoid significant impacts on non-volant (i.e., nonflying) bats, the Biologist shall only conduct bat exclusion and eviction from May 1 through October 1. Exclusion efforts shall also be restricted during periods of sensitive activity (e.g., during hibernation or while females in maternity colonies are nursing young).	
Impact BIO-2: The proposed project would not have a substantial adverse effect on riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the	Less Than Significant	No mitigation is necessary.	Less Than Significant

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.			
Impact BIO-3: The project could have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.	Potentially Significant	**MM BIO-3**: **Conduct Delineation of Potentially Jurisdictional Aquatic Resources (Channels & Wetlands)** The applicant(s) for development on any project parcel shall complete a formal jurisdictional delineation to document and quantify the full extent of potentially jurisdictional waters for the relevant project parcel(s) in coordination with the applicable regulatory agencies. The applicant(s) for development on any project parcel shall also coordinate, to the extent required under applicable laws and regulations, with the applicable regulatory agencies (United States Army Corps of Engineers [USACE], Regional Water Quality Control Board [RWQCB], and/or California Department of Fish and Wildlife [CDFW]) to determine whether the irrigation/drainage channels and/or cattail marsh on the project site is protected under Section 404 and 401 of the Clean Water Act (CWA) and/or Section 1602 of the California Fish and Game Code. **Obtain CWA Sections 401 and 404 Permits Prior to Construction** • Prior to the fill of any potentially jurisdictional waters within the project site, the relevant project applicant(s) for the subject project parcel(s) shall consult with the USACE and Regional	Less Than Significant

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		Water Quality Control Board, to the extent required under applicable laws and regulations, to determine the extent, if at all, that waters of the United States and State may be impacted by the proposed project. • If required, the relevant applicant(s) for development of the subject project parcel(s) shall obtain a Section 404 CWA permit for impacts to waters of the United States. That same applicant, for development of the subject project parcel(s), will also obtain a Section 401 Water Quality Certification from the RWQCB, if required. Any such required permit and certification shall be obtained prior to issuance of grading permits for the implementation of the individual development proposal on the subject project parcel(s). • The applicant(s) for development on any project parcel shall design the project to result in no net loss of functions and values of waters of the United States and State by incorporating impact avoidance, impact minimization, and/or compensatory mitigation for the impact, as set forth in the subject Section 404 permit and 401 water quality certification. • Compensatory mitigation may consist of (1) obtaining credits from a mitigation bank; (2) making a payment to an in-lieu fee program that would conduct wetland, stream, or other aquatic resource restoration, creation,	

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		enhancement, or preservation activities; and/or (3) providing compensatory mitigation through an aquatic resource restoration, establishment, enhancement, and/or preservation activity. This final type of compensatory mitigation may be provided at or adjacent to the impact site (i.e., on-site mitigation) or at another location, usually within the same watershed as the permitted impact (i.e., off-site mitigation). This project/permit applicant shall retains responsibility for the implementation and success of the mitigation approach. **Obtain Approval of and File Notification of Streambed Alteration Agreement Prior to Construction** The applicant(s) for development on any project parcel shall ensure that the cattail marsh is not obstructed and human intrusion into the area is minimized. In compliance with Section 1600 of the California Fish and Game Code, the relevant applicant(s) of an individual development proposal within the project site shall obtain approval and file a notification of a Streambed Alteration Agreement prior to conducting any construction activities within irrigation/drainage channels that qualify as streams under CDFW jurisdiction (i.e., those having bed and bank and at least periodical flow) if and to the extent required under applicable laws and	

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		regulations. Those same applicant(s) shall implement all mitigation measures imposed by the CDFW related to the subject Streambed Alteration Agreement, which may include but not be limited to the implementation of erosion and bank stabilization measures, riparian habitat enhancement, and/or restoration and revegetation of the stream corridor habitat at no less than a 1:1 ratio, as determined by the CDFW.	
Impact BIO-4: The project would not substantially interfere with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.	Less Than Significant	No mitigation is necessary.	Less Than Significant
Impact BIO-5: The project would not conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	No impact	No mitigation is necessary.	No impact
Impact BIO-6: The project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan.	Less Than Significant	No mitigation is necessary.	Less Than Significant
Cumulative Impacts	Potentially Significant	MM BIO-1a through MM BIO-1f and MM BIO-3	Less Than Significant
Section 3.5—Cultural Resources			
Impact CUL-1: The project could cause a substantial adverse change in the	Potentially Significant	**MM CUL-1**: **Archaeological Spot-Monitoring and Halt of Construction**	Less Than Significant

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
significance of a historical resource as defined in Section 15064.5.		**Upon Encountering Historical or Archeological Materials** An Archaeologist who meets the Secretary of the Interior's Professional Qualification Standards for archaeology shall inspect the site once grubbing and clearing are complete for the purpose of determining whether there are any previously undiscovered resources onsite, and prior to any grading or trenching into previously undisturbed soils. This shall be followed by regular periodic or "spot-check" archaeological monitoring as determined by the Archaeologist. If the Archaeologist believes that a reduction in monitoring activities is prudent, then a letter report detailing the rationale for making such a reduction and summarizing the monitoring results shall be provided to the City of Tracy for concurrence. In the event a potentially significant cultural resource is encountered during subsurface earthwork activities, all construction activities within a 100-foot radius of the find shall cease and workers shall avoid altering the materials until an Archaeologist has evaluated the situation. The applicants for the development of the Tracy Alliance, Suvik Farms, and Zuriakat parcels shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. Potentially significant cultural resources consist of but are not limited to stone, bone, glass, ceramics, fossils, wood, or	

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		shell artifacts, or features including hearths, structural remains, or historic dumpsites. The Archaeologist shall evaluate any finding(s) and determine whether they are significant, and if so, shall make recommendations concerning appropriate measures that will be implemented to protect the significant resource, including but not limited to excavation and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines. Any previously undiscovered significant resources found during construction within the project site shall be recorded on appropriate Department of Parks and Recreation (DPR) 523 forms and shall be submitted to the City of Tracy, the Northwest Information Center (NWIC), and the California Office of Historic Preservation (OHP), as required.	
Impact CUL-2: The project could cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.	Potentially Significant	MM CUL-1	Less Than Significant
Impact CUL-3: The project could disturb human remains, including those interred outside of formal cemeteries.	Potentially Significant	**MM CUL-3**: **Stop Construction Upon Encountering Human Remains** In the event of the accidental discovery or recognition of any human remains, CEQA Guidelines Section 15064.5, Health and Safety Code Section 7050.5, and Public Resources Code Sections 5097.94 and Section 5097.98 shall be followed. If during the course of project construction, there is accidental discovery or	Less Than Significant

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		recognition of any human remains, the following steps shall be taken: 1. There shall be no further excavation or disturbance within 100 feet of the remains until the county coroner is contacted to determine if the remains are Native American and if an investigation of the cause of death is required. If the coroner determines the remains to be Native American, the coroner shall contact the Native American Heritage Commission (NAHC) within 24 hours, and the NAHC shall identify the person or persons it believes to be the Most Likely Descendant (MLD) of the deceased Native American. The MLD may make recommendations to the landowner or the person responsible for the excavation work within 48 hours, for means of treating or disposing of, with appropriate dignity, the human remains, and any associated grave goods as provided in Public Resource Code Section 5097.98. 2. Where the following conditions occur, the landowner or his or her authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity either in accordance with the recommendations of the most likely descendant or on the project site in a location not subject to further subsurface disturbance:	

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		• The NAHC is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 48 hours after being notified by the commission. • The descendant identified fails to make a recommendation. • The landowner or his authorized representative rejects the recommendation of the descendant, and mediation by the NAHC fails to provide measures acceptable to the landowner. Additionally, California Public Resources Code Section 15064.5 requires the following relative to Native American Remains: • When an initial study identifies the existence of, or the probable likelihood of, Native American Remains within a project, a lead agency shall work with the appropriate Native Americans as identified by the NAHC as provided in Public Resources Code Section 5097.98. The applicants for the development of the Tracy Alliance, Suvik Farms, and Zuriakat parcels may each develop a plan with respect to their individual development proposals for treating or disposing of, with appropriate dignity, the human remains, and any items associated with Native American Burials with the appropriate Native Americans as identified by the NAHC.	

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Cumulative Impacts	Potentially Significant	MM CUL-1 and MM CUL-3	Less Than Significant
Section 3.6—Energy			
Impact ENER-1: The proposed project would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.	Less Than Significant	No mitigation is necessary.	Less Than Significant
Impact ENER-2: The proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.	Less Than Significant	No mitigation is necessary.	Less Than Significant
Cumulative Impacts	Less Than Significant	No mitigation is necessary.	Less Than Significant
Section 3.7—Geology and Soils			
Impact GEO-1: The proposed project could 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. iv) Landslides.	Potentially Significant	**MM GEO-1: Prepare Grading and Construction Plans that Incorporate Geotechnical Engineering Report Recommendations** Prior to issuance of the grading permits for the proposed project, development of the final grading, foundation, and construction plans shall incorporate the site-specific earthwork, foundation, floor slab, lateral earth pressure, and pavement design recommendations, as detailed in the Geotechnical Engineering Report prepared by Terracon dated January 30, 2019. The applicant(s) for development of individual development proposal(s) within the project site shall each coordinate with a City-approved Geotechnical Engineer and Engineering Geologist to tailor the grading and	Less Than Significant

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		foundation plans for the relevant development proposal, as needed, to reduce risk related to known soil and geologic hazards. The final grading and construction plans for the relevant development proposal shall be reviewed by the City-approved Geotechnical Engineer to confirm compliance with this MM GEO-1. Grading operations shall meet the applicable requirements of the recommendations included in the Geotechnical Engineering Report prepared by Terracon on January 30, 2019. During construction, the City-approved Geotechnical Engineer shall monitor construction of the relevant development proposal to ensure the earthwork operations are properly performed in accordance with the foregoing recommendations.	
Impact GEO-2: The proposed project would not result in substantial soil erosion or the loss of topsoil.	Less Than Significant	No mitigation is necessary.	Less Than Significant
Impact GEO-3: The project could 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.	Potentially Significant	MM GEO-1	Less Than Significant
Impact GEO-4: The project could be located on expansive soil, as defined in	Potentially Significant	MM GEO-1	Less Than Significant

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.			
Impact GEO-5: The proposed project would not 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	No mitigation is necessary	Less Than Significant
Impact GEO-6: The proposed project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	Potentially Significant	**MM GEO-6**: **Inadvertent Discovery of Paleontological Resources During Project Construction** In the event a fossil is discovered during construction for the proposed project, excavations within 50 feet of the find shall be temporarily halted or delayed until the discovery is examined by a qualified paleontologist in accordance with Society of Vertebrate Paleontology standards. The applicants for development of individual proposals within the project site shall each include a standard inadvertent discovery clause in every proposed project-related construction contract to inform their respective contractors of this requirement. If the find is determined to be significant and if avoidance is not feasible, the paleontologist shall design and implement a data recovery plan that is consistent with the applicable Society of Vertebrate Paleontology standards. Any recovered fossil should be deposited in an appropriate repository, such as the	Less Than Significant

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		UCMP, where it will be properly curated and made accessible for future studies.	
Cumulative Impacts	Potentially Significant	MM GEO-1 and MM GEO-6	Less Than Significant
Section 3.8—Greenhouse Gas Emissions			
Impact GHG-1: The proposed project would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.	Less Than Significant	No mitigation is necessary.	Less Than Significant
Impact GHG-2: The proposed project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.	Less Than Significant	No mitigation is necessary.	Less Than Significant
Cumulative Impacts	Less Than Significant	No mitigation is necessary.	Less Than Significant
Section 3.9—Hazards and Hazardous Materials			
Impact HAZ-1: The proposed project could create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	Potentially Significant	**MM HAZ-1a**: **Conduct Soil Sampling (Tracy Alliance, Zuriakat, and Suvik Farms parcels)** Prior to the issuance of grading permits, the relevant applicant for an individual development proposal within the project site shall provide evidence of soil testing within the project boundary to confirm presence or absence of hazardous compounds such as lead and arsenic. The testing shall be conducted pursuant to a San Joaquin Environmental Health-approved sampling plan. If hazardous levels of hazardous compounds are found, excavated soils shall be sent off-site for disposal and any affected soils	Less Than Significant

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		encountered should be properly characterized, treated and/or disposed of in accordance with applicable local, State, and federal laws and regulations. The relevant applicant shall complete any residual soil remediation in connection with the relevant individual development proposal to the satisfaction of San Joaquin Environmental Health, as evidenced by the submittal of a no further action letter. In addition, if hazardous contaminants related to the former agricultural use of the site (such as lead or arsenic) are found, a construction worker health and safety plan shall be prepared and shall be implemented during construction of the relevant individual development proposal. **MM HAZ-1b**: **Proper Disposal and Decommission of Underground Storage Tanks, Aboveground Storage Tanks, and Unlabeled Drums (Tracy Alliance Parcel only)** If any of the reported underground storage tanks (USTs) or aboveground storage tanks (ASTs) are discovered during excavation activities, the applicant for the development of the Tracy Alliance parcels shall dispose of and decommission the USTs and ASTs in accordance with applicable laws and regulations of the Local Oversight Program (LOP) and the American Petroleum Institute Standards, respectively. The unlabeled drums and containers observed during the site reconnaissance for the Phase I	

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		Environmental Site Assessment (Phase I ESA) for the Tracy Alliance parcels shall be characterized and disposed of in accordance with applicable local, State, and federal laws and regulations. **MM HAZ-1c: Conduct Asbestos and Lead Surveys Prior to Demolition (Tracy Alliance Parcel only)** Prior to the issuance of demolition permits for the existing buildings, the applicant for the development of the Tracy Alliance parcels shall retain a licensed professional to conduct asbestos and lead paint surveys. These surveys shall be conducted prior to the disturbance or removal of any suspect asbestos-containing materials and lead-based paint, and these materials shall be characterized for asbestos and lead by a reliable method. All activities involving asbestos-containing materials and lead-based paint shall be conducted in accordance with applicable laws and regulations, and all removal shall be conducted by properly licensed abatement contractors. **MM HAZ-1d**: **Dust Mitigation and Soil Evaluation (Tracy Alliance, Zuriakat, and Suvik Farms parcels)** During any grading or excavation activities in connection with an individual development proposal within the project site, relevant development personnel shall be made aware to look for unusual	

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		conditions suggesting buried debris or other potential adverse environmental conditions. If any abnormal soils are discovered during development activities, such as stained soils, hydrocarbon odors, or any other unusual odors, all construction activities near the discovery shall be stopped immediately and the applicant for the relevant individual development proposal shall contact a qualified hazardous material consulting firm for further assessment and implementation of any appropriate actions as may be required under applicable laws and regulations before construction of the relevant individual proposal can begin again. **MM HAZ-1e**: **Consultation with Chevron and DigAlert (Suvik Farms parcel only)** Prior to any ground disturbance and construction along the northern side of West Grant Line Road, adjacent to the southern boundary of the Tracy Alliance and Suvik Farms parcels, the relevant applicant(s) for the development of the Tracy Alliance and/or Suvik Farms parcels shall consult with Chevron (www.chevron-pipeline.com; 800.762.3404) and DigAlert 811 to determine the location of the existing underground petroleum pipeline to facilitate avoidance during ground disturbance and construction activities.	
Impact HAZ-2: The proposed project would not create a significant hazard to the public	Less Than Significant	No mitigation is necessary.	Less Than Significant

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment.			
Impact HAZ-3: The proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.	Less Than Significant	No mitigation is necessary.	Less Than Significant
Impact HAZ-4: The proposed project is 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, could create a significant hazard to the public or the environment.	Potentially Significant	MM HAZ-1a and MM HAZ-1b	Less Than Significant
Impact HAZ-5: The proposed project would not be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, and result in a safety hazard or excessive noise for people residing or working in the project area.	No impact	No mitigation is necessary.	No impact
Impact HAZ-6: The proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	Less Than Significant	No mitigation is necessary.	Less Than Significant
Impact HAZ-7: The proposed project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.	Less Than Significant	No mitigation is necessary.	Less Than Significant

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Cumulative Impacts	Less Than Significant	No mitigation is necessary	Less Than Significant
Section 3.10—Hydrology and Water Quality			
Impact HYD-1: The proposed project could violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.	Potentially Significant	**MM HYD-1a**: **Prepare Stormwater Pollution Prevention Plan** Prior to the issuance of a grading permit, the relevant applicant for each individual development proposal within the project site shall submit a draft of the Notice of Intent (NOI) and Storm Water Pollution Prevention Plan (SWPPP) in connection with its individual development proposal pursuant to the then-applicable Multi-Agency Post-Construction Stormwater Standards Manual at the time the relevant grading permit is submitted. After City approval of the relevant grading permit, the relevant NOI and SWPPP shall be sent to the California State Water Resources Control Board (State Water Board) for approval. Approval by the State Water Board is a prerequisite for issuance of the relevant grading permit by the City. The SWPPP shall address stormwater management during each phase of construction of the relevant individual development proposal. Best Management Practices (BMPs) shall be integrated into the relevant SWPPP as identified by the City of Tracy, which will result in the reduction or elimination of pollutants in stormwater discharges and the stabilization of BMPs to reduce or eliminate pollutants after construction of the relevant individual development proposal is completed. The	Less Than Significant

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		relevant SWPPP shall be consistent with the applicable Regional Water Quality Control Board (RWQCB) standards and National Pollutant Discharge Elimination System (NPDES) permit requirements to protect water quality over the period of construction of the relevant individual development proposal. **MM HYD-1b**: **Prepare Stormwater Management Plan** Prior to the issuance of a grading permit, the relevant applicant for each individual development proposal within the project site shall prepare a Stormwater Management Plan in connection with its individual development proposal for review and approval by the City of Tracy. The relevant Storm Water Management Plan (SWMP) shall include two fundamental components: (1) treatment for pollutants collected in stormwater using Low Impact Development (LID) measures, and (2) no net increase in the erosion potential of the receiving stream over the pre-project (existing) condition. All LID treatment measures would be required to be designed in accordance with applicable engineering criteria in the then-applicable Multi-Agency Post-Construction Stormwater Standards Manual. Implementation of the relevant SWMP would require the preparation of a clearly defined Operations and Maintenance (O&M) Plan by the relevant applicant in connection with its	

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		development proposal to ensure that installed stormwater treatment measure(s) and hydromodification management control(s) are inspected and properly operated and maintained for the life of the relevant individual development proposal.	
Impact HYD-2: The proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.	Less Than Significant	No mitigation is necessary.	Less Than Significant
Impact HYD-3: The proposed project could 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?	Potentially Significant	Implement MM HYD-1a MM HYD-1b and **MM HYD-3: Prepare Final Drainage Plan Prior to Grading** Each applicant for an individual development proposal within the project site shall, in connection with the relevant individual development proposal: • Comply with all applicable rules, regulations, and procedures of the National Pollutant Discharge Elimination System (NPDES) for municipal, construction and industrial activities as promulgated by the California State Water Resources Control Board (State Water Board), or any of its Regional Water Quality Control Boards (RWQCBs). • Submit a Final Stormwater Control Plan and a Stormwater Control Operation and Maintenance Plan (O&M Plan) to the City of Tracy Public Works and	Less Than Significant

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		Community Development Department, which shall be reviewed for compliance with the County's National Pollutant Discharge Elimination System (NPDES) Permit and shall be determined consistent with the City's Stormwater Management and Discharge Control Ordinance (Chapter 11.34 of the Municipal Code, Ordinance 1072) prior to issuance of a grading permit for the relevant individual development proposal. Improvement Plans shall be reviewed to verify consistency with the relevant Final Stormwater Control Plan and compliance with Provision C.3 of the City's NPDES Permit and the City's Stormwater Management and Discharge Control Ordinance (Chapter 11.34 of the Municipal Code, Ordinance 1072). • Prior to issuance of grading permits for each relevant individual development proposal, the relevant applicant shall submit a Final Drainage Plan in connection with the relevant individual development proposal that incorporates the measures included in the Flood Protection Technical Memorandum. The City of Tracy Public Works and Community Development Department shall review the relevant Final Drainage Plan to ensure it is in compliance with all applicable requirements and standards, including the recommendations provided in the Flood Protection Technical	

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		Memorandum and in the Citywide Storm Drainage Master Plan in effect at the time building permits are issued, to reduce risk related to flooding within a designated floodplain. The relevant Final Drainage Plan shall be reviewed by City of Tracy Public Works and Community Development Department staff to ensure that all building minimum floor elevations for the relevant development proposal are at 26 feet or 1 foot above the maximum flood elevation and will accommodate the 200-year storm event as detailed in the Flood Protection Technical Memorandum. In addition, the on-site stormwater detention basin shall be designed in accordance with the recommendations provided in the Flood Protection Technical Memorandum and in accordance with the Citywide Storm Drainage Master Plan in effect at the time building permits are issued. Additionally, the relevant Final Drainage Plan shall determine if discharge of pre-project runoff rates and/or volumes into the Tom Paine Slough drainage area can continue after project construction pursuant to applicable standards and requirements. Should the relevant Final Drainage Plan determine it is feasible to discharge some runoff (possibly up to the pre-project runoff volume) into the existing downstream system, this design shall be submitted to the City of	

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		Tracy as part of the relevant Final Drainage Plan for review and approval.	
Impact HYD-4: The proposed project would be located in a flood hazard zone, tsunami, or seiche zone, or risk release of pollutants due to project inundation.	Potentially Significant	Implement MM HYD-3	Less Than Significant
Impact HYD-5: The proposed project could conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	Potentially Significant	Implement MM HYD-1a	Less Than Significant
Cumulative Impacts	Less Than Significant	No mitigation is necessary.	Less Than Significant
Section 3.11—Land Use and Planning			
Impact LAND-1: The proposed project would not physically divide an established community.	Less Than Significant	No mitigation is necessary.	Less Than Significant
Impact LAND-2: The proposed project would not cause a significant environmental impact due to conflict with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.	Less Than Significant	No mitigation is necessary.	Less Than Significant
Cumulative Impacts	Less Than Significant	No mitigation is necessary.	Less Than Significant
Section 3.12—Noise			
Impact NOI-1: The proposed project would not 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	No mitigation is necessary.	Less Than Significant
Impact NOI-2: The proposed project could generate a substantial temporary or	Potentially Significant	**IMM NOI-2:** To reduce potential construction noise impacts, the following	Less Than Significant

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
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.		multi-part Improvement Mitigation Measure (IMM) shall be implemented for the project: • Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment. • Locate stationary operational noise-generating equipment as far as feasible from sensitive receptors when sensitive receptors adjoin or are near a construction area. In addition, the project contractor shall place such stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the project site to the extent feasible. • Utilize "quiet" air compressors and other stationary operational noise sources where such technology exists and is commercially practicable. • The construction contractor shall prohibit unnecessary idling (i.e., idling in excess of 5 minutes) of internal combustion engines. • The construction contractor shall, to the maximum extent practicable, locate on-site equipment staging areas so as to maximize the distance between construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction. • The construction contractor shall ensure that all construction activities	

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		that would occur within 550 feet of a residential land use property line shall be limited to daylight hours or to the hours of 7:00 a.m. and 7:00 p.m.	
Impact NOI-3: The proposed project would not result in generation of excessive groundborne vibration or groundborne noise levels.	Less Than Significant	No mitigation is necessary.	Less Than Significant
Impact NOI-4: The proposed project would not expose people residing or working in the project area to excessive noise levels for a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport.	Less Than Significant	No mitigation is necessary.	Less Than Significant
Cumulative Impacts	Less Than Significant	No mitigation is necessary.	Less Than Significant
Section 3.13—Public Services			
Impact PUB-1: The proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection.	Less Than Significant	No mitigation is necessary.	Less Than Significant
Impact PUB-2: The proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered	Less Than Significant	No mitigation is necessary	Less Than Significant

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police protection.			
Impact PUB-3: The proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives for schools.	Less Than Significant	No mitigation is necessary.	Less Than Significant
Impact PUB-4: The proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives for parks.	Less Than Significant	No mitigation is necessary.	Less Than Significant
Impact PUB-5: The proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause	Less Than Significant	No mitigation is necessary.	Less Than Significant

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives for libraries or other public facilities.			
Cumulative Impacts	Less Than Significant	No mitigation is necessary.	Less Than Significant
Section 3.14—Transportation			
Impact TRANS-1: The proposed project would result in a substantial increase in vehicle miles traveled.	Potentially Significant	**MM TRANS-1: Transportation Demand Management Measures** **MM TRANS-1(a)**: Transportation Demand Management Measures Prior to issuance of the first building permit for the relevant individual development proposal, the relevant applicant for the individual development proposal at issue shall submit to the City of Tracy Planning Department a transportation demand management (TDM) program that incorporates all of the following six measures (as explained further in Table 3.14-6 of the Draft EIR): 1. Communication and Information Strategies–4 percent reduction; 2. Telecommuting for administrative staff (5 percent of staff population)–1 percent reduction; 3. Designated parking spaces for carpool vehicles–1 percent reduction; 4. Provide a transit stop along the project frontage on Grant Line Road, if agreed to by the City–2 percent reduction; 5. Provide bike lanes and sidewalks along the project frontage–1 percent reduction; and	Significant and Unavoidable

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		6. Provide on-site bike racks and showers–1 percent reduction. Provided, however, that if the relevant applicant determines that one of more of the foregoing six TDM measures is not feasible in connection with the individual development proposal at issue, then the relevant applicant may obtain approval from the City of Tracy Planning Department of acceptable substitute TDM measure(s) pursuant to Table 3.14-6 of the Draft EIR. The relevant applicant's TDM program, as described above, shall reflect a 10 percent reduction in VMT for the relevant individual development proposal. **MM TRANS-1(b): Payment of Applicable Banking Fee.** In addition to the TDM program required in MM TRANS-1(a), each applicant for an individual development proposal shall pay the applicable fee as set forth in the adopted VMT Mitigation Banking Fee in place and effective at the time the relevant applicant seeks to obtain building permits for its individual development proposal. Provided, however, that if the City Council has not adopted the Mitigation Banking Fee Program such that it is effective and in place at the time an applicant for an individual development proposal seeks to obtain a building permit, then payment of	

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		$633.11 (cost per VMT reduction for the relevant individual development proposal) shall constitute compliance with this MM TRANS-1(b).	
Impact TRANS-2: The proposed project could substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	Potentially Significant	**MM TRANS-2:** Prepare and Implement Construction Traffic Control Plan Prior to the start of construction for ant individual development proposal, the relevant applicant shall prepare and submit a Construction Traffic Control Plan for the individual development proposal at issue. Each plan shall include the following items. Each approved plan shall be implemented during construction of the individual development proposal at issue. • Project staging plan to maximize on-site storage of materials and equipment • Permitted construction hours • Location of construction staging • Provisions for street sweeping to remove construction related debris on public streets • A set of comprehensive traffic control measures including preparation of traffic control plans, as needed; scheduling of major truck trips and deliveries to avoid peak-hours; lane closure proceedings; signs, cones, and other warning devices for drivers; and designation of construction haul routes. • Survey of the pavement condition on roadways within the relevant individual	Less Than Significant

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		development to be used as part of haul route prior to the commencement of any work on-site. The survey shall include a video tape of the roadways. Each relevant applicant shall complete any remedial work prior to initiation of use and provide a bond assuring completion of the remediation work triggered by the individual development proposal, the amount which shall be deemed sufficient by the Public Works Department. • The relevant applicant shall provide a pavement analysis for those roads along the proposed haul routes or any alternate route(s) that are proposed to be utilized by hauling operation for the individual development proposal at issue. This study shall analyze the existing pavement conditions and determine what impact the hauling operation will have over the construction period of the relevant individual development. The study shall provide recommendations to mitigate identified impacts, which shall be implemented by the relevant applicant for the individual development proposal at issue.	
Impact TRANS-3: The proposed project could result in inadequate emergency access.	Less Than Significant	No mitigation is necessary.	Less Than Significant
Impact TRANS-4: The proposed project would not conflict with policies, plans, or programs regarding public transit, bicycle,	Less Than Significant	No mitigation is necessary.	Less Than Significant

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.			
Cumulative Impacts	Potentially Significant	Implement MM TRANS-1(a) and MM TRANS-(b)	Significant and Unavoidable
Section 3.15—Tribal Cultural Resources			
Impact TCR-1: The proposed project could cause a substantial adverse change in the significance of a Tribal Cultural Resource that is 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).	Potentially Significant	Implement MM CUL-1 and MM CUL-3	Less Than Significant
Impact TCR-2: The proposed project could cause a substantial adverse change in the significance of a Tribal Cultural 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.	Potentially Significant	Implement MM CUL-1 and MM CUL-3	Less Than Significant
Cumulative Impacts	Potentially Significant	Implement MM CUL-1 and MM CUL-3	Less Than Significant
Section 3.16—Utilities and Service Systems			
Impact UTIL-1: The proposed project would require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.	Potentially Significant	Implement MM UTIL-3 and **MM UTIL-1a: Adherence to Applicable Performance Standards and Payment of Infrastructure Fees** Prior to the issuance of building permits for an individual development proposal, the relevant applicant shall demonstrate compliance of the individual	Less Than Significant

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		development proposal at issue with applicable performance standards pursuant to the then-current Urban Water Management Plan, Citywide Water System Master Plan, Wastewater Master Plan, and Citywide Storm Drainage Master Plan. In addition, each applicant for an individual development proposal shall pay its respective proportionate share of required funding, subject to applicable laws governing nexus requirements, to the City for completion of relevant planned City Capital Improvement Plan improvements. **MM UTIL-1b: Submittal of Final Engineering Plans for Tracy Alliance Parcels** Prior to the issuance of the building permit for the first building on the Tracy Alliance parcels, the applicants for the development of the Tracy Alliance parcels shall submit engineering plans to the City of Tracy for review and approval to confirm compliance with this MM UTIL-1b. These plans shall include additional 12-inch diameter pipelines on-site as shown on Exhibit 3.16-6 of this Draft EIR and the fire service laterals shall be upsized to 14-inch diameter. **MM UTIL-1c: Submittal of Final Engineering Plans for Suvik Farms and Zuriakat Parcels** Prior to the issuance of the building permit for the first building on the subject	

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		parcel, each relevant applicant for the individual development proposal of the Suvik Farms or Zuriakat Parcels, respectively, shall each submit final engineering plans to the City of Tracy for review and approval to confirm compliance with the relevant performance standards, including, but not limited to, those pursuant to the current Urban Water Management Plan, Citywide Water System Master Plan, Wastewater Master Plan, and Citywide Storm Drainage Master Plan in effect at the time building permits are requested.	
Impact UTIL-2: The proposed project would have sufficient water supplies available to serve the proposed project and reasonably foreseeable future development during normal, dry, and multiple dry years.	Potentially Significant	Implement MM UTIL-1a	Less Than Significant
Impact UTIL-3: The proposed project would result in a determination by the wastewater treatment provider, which serves or may serve the proposed project, that it has adequate capacity to serve the proposed project's projected demand in addition to the provider's existing commitments.	Potentially Significant	**MM UTIL-3: Payment of Wastewater Infrastructure Fees/Construction of Wastewater Facilities** Prior to the issuance of the first building permit for the subject individual development proposal, the relevant applicant shall participate in the implementation of the Wastewater Master Plan (WWMP) in effect at the time the relevant building permit is requested through the payment of the applicable impact fees as included in the City's Capital Improvement Plan.	Less Than Significant

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact UTIL-4: The proposed project would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.	Less Than Significant	No mitigation is necessary.	Less Than Significant
Impact UTIL-5: The proposed project would comply with federal, State, and local management and reduction statutes and regulations related to solid waste.	Less Than Significant	No mitigation is necessary.	Less Than Significant
Cumulative Impacts	Less Than Significant	No mitigation is necessary.	Less Than Significant
Section 3.17—Wildfire			
Impact WILD-1: The proposed project would not substantially impair an adopted emergency response plan or emergency evacuation plan.	No Impact	No mitigation is necessary.	No Impact
Impact WILD-2: Due to slope, prevailing winds, and other factors, the project would not exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.	No Impact	No mitigation is necessary.	No Impact
Impact WILD-3: The project would not require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.	No Impact	No mitigation is necessary.	No Impact

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact WILD-4: The proposed project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.	No Impact	No mitigation is necessary.	No Impact
Cumulative Impacts	No Impact	No mitigation is necessary.	No Impact

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CHAPTER 1: INTRODUCTION

This Draft Environmental Impact Report (Draft EIR) for the Tracy Alliance Project (proposed project) has been prepared in accordance with applicable criteria, standards, and procedures of the California Environmental Quality Act (CEQA), as amended (California Public Resources Code [PRC], § 21000, *et seq*.) and the CEQA Guidelines (California Code of Regulations [CCR], Title 14, § 15000, *et seq*.). In accordance with Sections 21067, 15367, and 15050–15053 of the CEQA Guidelines, the City of Tracy (City) is the lead agency under whose authority this document has been prepared. As an informational document, this Draft EIR is intended for use by the City and other public agency decision makers, interested organizations and members of the public in evaluating the potential environmental impacts of the proposed project.

1.1 - Project Overview

The proposed project consists of the development of up to 3,352,320 square feet of warehouse and distribution and related uses on a total of approximately 191.18 acres. The site consists of six parcels under ownership by three separate parties: the Tracy Alliance Group owns two parcels (totaling approx. 122.44 acres), Suvik Farms, LLC owns three parcels (totaling approximately 46.61 acres), and Zuriakat owns one parcel (approximately 22.17 acres).

The project site is within unincorporated San Joaquin County adjacent to the City of Tracy's northeastern city limits and adjacent to the City of Tracy Northeast Industrial (NEI) Specific Plan area (Exhibit 2-1 and Exhibit 2-2 in the Project Description). The proposed project would require approval of annexation into the City of Tracy, pre-zoning, an amendment to the NEI Specific Plan, and a Tentative Parcel Map or Lot Line Adjustment(s) to create the final lot configurations (Exhibit 2-3 in the Project Description depicts the proposed parcel reconfiguration, which depicts the ultimate parcels).

The proposed project also includes demolition of existing residential and agricultural buildings, removal of existing trees and crops, construction of on- and off-site roadway improvements, and grading of approximately 500,000 cubic yards, which would be balanced on-site. Of the 500,000 cubic yards of material graded, approximately 300,000 cubic yards would occur on the Tracy Alliance parcels, approximately 150,000 cubic yards would occur in development of the Suvik Farms parcels, and approximately 50,000 cubic yards would occur in development of the Zuriakat parcel.

Development on the two Tracy Alliance parcels would consist of approximately 1,849,500 square feet of warehouse and distribution space located in three buildings, as well as a stormwater detention basin with pump station that would be City-owned and managed. Approximately 12.51 acres of the Tracy Alliance land would be reserved to accommodate a portion of a planned interchange at Paradise Road and Interstate 205 (I-205). However, the potential impacts of constructing this future interchange would undergo a separate environmental review process pursuant to the CEQA and National Environmental Policy Act (NEPA), once funding is programmed and available and once the ultimate design of the interchange is finalized; accordingly, the construction of the interchange is not considered part of the proposed project. In addition to the

proposed development on the Tracy Alliance parcels, this Draft EIR evaluates the maximum development potential that could occur on the remaining parcels (Suvik Farms and Zuriakat), which is estimated to consist of up to 1,502,820 square feet of warehouse and distribution development, consistent with the maximum allowable density per acre identified in the NEI Specific Plan.

Chapter 2, Project Description, provides a complete description of the proposed project.

1.2 - Environmental Review Process

An EIR is an informational document used by a lead agency (in this case, the City) when considering approval of a proposed project. The purpose of an EIR is to provide public agencies, other interested organizations, and members of the public with detailed information regarding the environmental effects associated with implementing a project. An EIR should analyze the environmental consequences of a project, and should also identify ways to feasibly reduce or avoid the proposed project's potential environmental effects through design refinements, mitigation, or the identification of project alternatives that could avoid or reduce impacts while still achieving most of the project objectives. Pursuant to CEQA, State and local government agencies must consider the environmental consequences of projects over which they have discretionary authority. This Draft EIR provides information to be used in the planning and decision-making process. It is not the purpose of an EIR to recommend approval or denial of a proposed project.

Before approval of the proposed project, the City, as lead agency and the land use decision-making entity, is required to certify that this EIR has been completed in compliance with CEQA, that the information in the EIR has been considered, and that the EIR reflects the independent judgment of the City. Pursuant to CEQA, if there are significant and unavoidable impacts identified in an EIR, then decision makers must balance the benefits of a project against its unavoidable environmental consequences. If environmental impacts are identified as significant and unavoidable, the City may still approve the proposed project if it finds that social, economic, legal, technological, or other benefits outweigh the unavoidable impacts, the reasoning for which the City would state in writing, based on information in the EIR and other information sources in the administrative record. This written document that sets forth this reasoning is called a "statement of overriding considerations" (PRC § 21081; CEQA Guidelines § 15093).

In addition, the City as lead agency must adopt a Mitigation Monitoring and Reporting Program (MMRP) describing the identified mitigation measures that are to be made enforceable conditions of project approval to feasibly avoid or mitigate significant effects on the environment (PRC § 21081.6; CEQA Guidelines § 15097). The MMRP is adopted at the time of project approval and is designed to ensure compliance with the Project Description and EIR mitigation measures during and after project implementation. If the City decides to approve the proposed project, it would be responsible for verifying that the MMRP for this proposed project is implemented. In addition, the EIR will be used by the City and responsible and trustee agencies, as relevant, during approval of future discretionary actions and permits that are necessary to implement the proposed project.

This Draft EIR provides a project level analysis for the proposed project. For the purposes of analysis in this Draft EIR, because the applicant for the Tracy Alliance parcels has submitted an individual

development proposal for these parcels, this Draft EIR evaluates, as required under CEQA, the specific aspects of that proposal. With respect to the remaining portions of the project site, individual development proposals have not yet been submitted. Accordingly, this Draft EIR evaluates at a project level full buildout of the project site as contemplated under the proposed project, based on information that is reasonably available and reflects reasonable assumptions of maximum development potential that could occur on the remaining parcels (Suvik Farms and Zuriakat). This is estimated to consist of up to 1,502,820 square feet of warehouse and distribution development, consistent with the maximum allowable density per acre identified in the NEI Specific Plan (see Table 2-2 in the Project Description for a summary of the proposed development). The level of analysis for Suvik Farms and Zuriakat parcels reflects the level of detail available at the time of preparation of this Draft EIR. The environmental impacts of the proposed project are analyzed in the Draft EIR to the degree of specificity appropriate, in accordance with CEQA Guidelines Section 15146. This document addresses the potentially significant adverse environmental impacts that may be associated with the construction and operation of the proposed project. It also identifies appropriate and feasible mitigation measures and a reasonable range of potentially feasible alternatives as required under CEQA.

CEQA requires that an EIR contain, at a minimum, certain specific components. These components are contained in this Draft EIR and include:

- Table of Contents
- Introduction
- Executive Summary
- Project Description
- Environmental Setting
- Significant Environmental Impacts
- Mitigation Measures
- Cumulative Impacts
- Significant Unavoidable Adverse Impacts
- Alternatives to the Proposed Project
- Growth-Inducing Impacts
- Effects Found not to be Significant
- Areas of Known Controversy

The City is designated as the lead agency for the proposed project. CEQA Guidelines Section 15367 defines the lead agency as ". . . the public agency, which has the principal responsibility for carrying out or approving a project." Other public agencies may use this Draft EIR in the decision-making or permit process and consider the information in this Draft EIR along with other information that may be presented during the CEQA process.

This Draft EIR was prepared by FirstCarbon Solutions (FCS), an environmental consultant, under contract to the City. Prior to public review, it was extensively reviewed and evaluated by the City. This Draft EIR reflects the independent judgment and analysis of the City as required by CEQA. Lists of organizations and persons consulted and the report preparation personnel is provided in Chapter 7 of this Draft EIR.

1.3 - Purpose and Legal Authority

1.3.1 - Notice of Preparation and Public Scoping Process

In accordance with Sections 15063 and 15082 of the CEQA Guidelines, the City, as lead agency, sent a Notice of Preparation (NOP) to responsible and trustee agencies, other public agencies and organizations, and members of the public on August 28, 2020, thus beginning the formal CEQA scoping process. The purpose of the scoping process is to allow the public, government agencies, and other interested organizations to provide input on the scope of the EIR. The scoping period began on August 28, 2020, and ended on September 30, 2020, representing the statutory 30-day public review period. Seven comment letters were received in response to the NOP. The NOP and comment letters are provided in Appendix A. Comments are summarized in Table 1-1, with cross-references to applicable Draft EIR sections, as appropriate, where analysis is included to address the comments received.

Pursuant to Section 15083 of the CEQA Guidelines, the NOP provided notice that the City would hold a public scoping meeting on September 9, 2020, starting at 7:00 p.m. Pacific Standard Time (PST) via a videoconference platform. At this meeting, attendees were given an opportunity to provide comments and express concerns about the potential effects of the proposed project; however, no public comments were received during the scoping meeting.

Table 1-1: Summary of EIR Scoping Comments

Agency/Organization	Author	Date	Comment Summary	Coverage in the Draft EIR
Public Agencies				
Native American Heritage Commission	Nancy Gonzalez-Lopez, Cultural Resources Analyst	8.31.2020	Compliance with Assembly Bill (AB) 52 and Senate Bill (SB) 18 regarding the requirements of tribal consultation as a result of an EIR and NOP. Author provides examples of appropriate mitigation measures if applicable. The author provides recommendations for cultural resource assessments and the necessary steps to follow in order to fully determine the existence and significant of tribal cultural resources on or near the project site.	Section 3.5: Cultural and Section 3.15: Tribal Cultural Resources
California Department of Toxic Substances Control	Gavin McCreary, Project Manager	9.8.2020	Hazards and Hazardous Materials, potential for historic or future activities on or near the project site to result in the release of hazardous wastes/substances on the project site. The EIR should also identify the mechanism(s) to initiate any required investigation and/or remediation and the government agency who will be responsible for providing appropriate regulatory oversight. Because of the potential for Aerially Deposited Lead-contaminated soil, the California	Section 3.9: Hazards and Hazardous Materials

Agency/Organization	Author	Date	Comment Summary	Coverage in the Draft EIR
			Department of Toxic Substances Control (DTSC) recommends collecting soil samples for lead analysis prior to performing any intrusive activities for the project described in the EIR. If applicable, proper investigation for mine waste should be discussed in the EIR. Surveys should be conducted on buildings that would be demolished for the presence of lead-based paints or products, mercury, asbestos containing materials, and polychlorinated biphenyl caulk. If applicable, proper sampling should be conducted to ensure that the imported soil is free of contamination. If any sites included as part of the proposed project have been used for agricultural, weed abatement or related activities, proper investigation for organochlorinated pesticides should be discussed in the EIR. The DTSC recommends the current and former agricultural lands be evaluated in accordance with DTSC's 2008 Interim Guidance for Sampling Agricultural Properties.	
California Department of Conservation	Monique Wilber, Conservation Program Support Supervisor	9.24.2020	The commenter requests that the EIR specify the type, amount, and location of farmland conversion resulting directly and indirectly from implementation of the proposed project. The commenter asks that impacts on any current and future agricultural operations in the vicinity; e.g., land use conflicts, increases in land values and taxes, loss of agricultural support infrastructure such as processing facilities, etc. should be discussed in the EIR. The commenter requests that the EIR describe the incremental impacts leading to cumulative impacts on agricultural land. This would include impacts from the proposed project, as well as impacts from past, current, and likely future projects. The commenter asks that any proposed mitigation measures for all impacted agricultural lands within the proposed project area be described. The commenter asks that the EIR evaluate the project's compatibility with, or potential contract resolutions for land in	Section 3.2: Agriculture and Forestry Resources

Agency/Organization	Author	Date	Comment Summary	Coverage in the Draft EIR
			an agricultural preserve and/or enrolled in a Williamson Act contract.	
San Joaquin Valley Air Pollution Control District	Arnaud Marjollet, Director of Permit Services	9.30.2020	The commenter provides comments related to criteria air pollutant emissions, construction emissions, operational emissions, recommended using the California Emissions Estimator Model (CalEEMod), Truck Routing, cleanest available trucks, reduce idling of heavy duty trucks, use of on-site electric road equipment, voluntary emission reduction agreement, health risk assessment, a health impact discussion, ambient air quality analysis, and cumulative air impacts.	Section 3.3: Air Quality and Section 3.8: Greenhouse Gas Emissions
Central Valley Regional Water Quality Control Board (RWQCB)	Nicholas White, Water Resource Control Engineer	9.30.2020	The commenter explains the various RWQCB regulations and policies that would need to be discussed in the EIR and properly mitigated for. In addition, the commenter explains the types of permits required for this project to comply with regulations meant to protect water quality.	Section 3.10: Hydrology and Water Quality
Delta Stewardship Council	Jeff Henderson, AICP Deputy Executive Office	9.30.2020	The commenter states that the City should consult with SJCOG to determine whether the proposed project is consistent with the Sustainable Communities Strategy (SCS) and should identify this in the Land Use and Planning section of the Draft EIR. Projects that are consistent with the SCS are not considered to be a covered action under the Delta Plan. The comment lists Delta Plan regulatory policies that may apply to the proposed project if the proposed project is later determined to be a covered action. In particular, Delta Plan Mitigation Measure (MM) 7-1 is of particular relevance to the proposed project, which would be located on prime agricultural land, including three parcels under a Williamson Act contract. The additional truck traffic associated with the proposed project could have significant cumulative health effects on the residents of Banta, in combination with other recent and planned projects in the Northeast Industrial Specific Plan area and baseline noise, traffic, and air	Section 3.2: Agriculture and Forestry Resources, Section 3.3: Air Quality, Section 3.8: Greenhouse Gas Emissions, Section 3.11: Land Use and Planning, Section 3.12: Noise, and Section 3.14: Transportation

Agency/Organization	Author	Date	Comment Summary	Coverage in the Draft EIR
			quality levels. The Air Quality section of the EIR should include an analysis of the cumulative health impacts on sensitive receptors in Banta.	
San Joaquin Council of Governments (SJCOG)	Laurel Boyd	10.12.2020	The commenter states that the City of Tracy is a signatory to San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) and that the project site would fall in the planning area. The commenter explains that participation in the SJMSCP satisfies requirements of both the state and federal endangered species acts, and ensures that the impacts are mitigated below a level of significance in compliance with CEQA. The commenter recommends that the co-applicants Schedule a SJMSCP Biologist to perform a pre-construction survey prior to any ground disturbance. The commenter also explains that the project would need to implement SJMSCP Incidental take Minimization Measures and mitigation requirements.	Section 3.4: Biological Resources
Source: FCS 2020.				

1.3.2 - Public Review

Upon completion of the public Draft EIR, the City filed a Notice of Completion (NOC) with the State Office of Planning and Research (OPR) to begin the public review period (PRC § 21161, CEQA Guidelines §§ 15085(a) and 15372). Concurrent with the NOC, the City also provided the related Notice of Availability (NOA) (CEQA Guidelines § 15087(a)), and the Draft EIR has been distributed to responsible and trustee agencies, other affected agencies, San Joaquin County, surrounding cities, and interested parties, as well as all parties requesting a copy of the Draft EIR in accordance with Public Resources Code 21092(b).

An electronic copy of the Draft EIR, including the technical appendices, can be viewed on the City's website at https://www.cityoftracy.org/our-city/departments/planning/specific-plans-environmental-impact-reports-and-initial-studies. A hard copy of the Draft EIR, including the technical appendices, can be viewed at the following locations (please check with the facility for hours of operation).:

City of Tracy
Development and Engineering Services
333 Civic Center Plaza
Tracy, CA 95376

Tracy Branch Library
20 East Eaton Avenue
Tracy, CA 95376

Agencies, organizations, and interested parties have the opportunity to comment on the Draft EIR during the 45-day public review period. Written comments on the Draft EIR should be addressed to:

Victoria Lombardo, Senior Planner
City of Tracy
Development Services
333 Civic Center Plaza
Tracy, CA 95376
Phone: 209.831.6428
Email: victoria.lombardo@cityoftracy.org

Submittal of electronic comments in Microsoft Word or Adobe PDF format is encouraged. Upon completion of the 45-day public review period, written responses to all significant environmental issues raised will be prepared and made available for review by the commenting agencies, organizations and public at least 10 days prior to the public hearing before the Tracy City Council on the proposed project, at which the certification of the Final EIR will be considered prior to the Council taking action on the proposed project. Comments received and the responses to comments will be included as part of the record for consideration by decision makers for the proposed project.

1.3.3 - Environmental Issues Determined not to be Significant

The NOP identified topical areas that were determined not to be significant. An explanation of why each area is determined not to be significant is provided in Chapter 4, Effects Found not to be Significant. These topical areas are as follows:

- Mineral Resources
- Population and Housing
- Parks and Recreation

1.3.4 - Potentially Significant Environmental Issues

The NOP found that the following topical areas may contain potentially significant environmental issues that will require further analysis in the Draft EIR. These sections are as follows:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Public Services
- Transportation
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire

1.4 - Draft EIR Document Organization

This Draft EIR is organized into the following main sections:

- **Chapter ES: Executive Summary.** This Chapter includes a summary of the proposed project and alternatives to be addressed in the Draft EIR. A brief description of any areas of controversy and issues to be resolved and an overview of the MMRP—in addition to a table that summarizes impacts, mitigation measures, and level of significance after mitigation—are also included in this Chapter.
- **Chapter 1: Introduction.** This Chapter provides an introduction and overview describing the purpose of this Draft EIR, its scope and components, and its review and certification process.
- **Chapter 2: Project Description.** This Chapter includes a detailed description of the proposed project, including location, site, and project characteristics. A discussion of project objectives intended uses of the Draft EIR, responsible and trustee agencies, and discretionary approvals that are needed for the proposed project are also provided.
- **Chapter 3: Environmental Impact Analysis.** This Chapter analyzes environmental impacts of the proposed project. Impacts are organized into major topical areas. Each topical area includes a description of the environmental setting, regulatory framework, significance criteria, methodology used in the analysis, specific thresholds of significance, impact analyses, mitigation measures (when applicable), and significance conclusions, as well as cumulative impacts associated with the project, including impacts of past, present, and reasonably foreseeable probable future projects. The specific environmental topical sections that are addressed within Chapter 3 are as follows:
  - **Section 3.1—Aesthetics:** Addresses potential visual impacts related to intensification and overall increase in illumination that would be produced by the proposed project.
  - **Section 3.2—Agriculture and Forestry Resources:** Addresses potential for conversion of Important Farmland to nonagricultural use and forest land to non-forest use.
  - **Section 3.3—Air Quality:** Addresses potential air quality impacts associated with project implementation and emissions of criteria pollutants. The section also evaluates project emissions of toxic air contaminants.
  - **Section 3.4—Biological Resources:** Addresses potential impacts on special-status habitat, vegetation, and wildlife; potential degradation or elimination of important habitat for special-status species; and impacts on listed, proposed, and candidate threatened and endangered species.
  - **Section 3.5—Cultural Resources:** Addresses potential impacts related to historical and archaeological resources, and burial sites.
  - **Section 3.6—Energy:** Addresses potential project impacts related to energy usage.
  - **Section 3.7—Geology and Soils:** Addresses potential impacts related to soils and assesses effects of project-related development in relation to geologic and seismic conditions. Also addresses potential impacts related to paleontological or unique geologic resources.
  - **Section 3.8—Greenhouse Gas Emissions:** Addresses potential project emissions of greenhouse gases.
  - **Section 3.9—Hazards and Hazardous Materials:** Addresses potential for presence of hazardous materials or conditions on the project site and vicinity that may have potential to create a significant hazard to the public or the environment.

- **Section 3.10—Hydrology and Water Quality:** Addresses potential impacts related to local hydrological conditions, including drainage areas and changes in flow rates, as well as the proposed project's potential impacts to water quality, erosion, and groundwater supplies.
- **Section 3.11—Land Use and Planning:** Addresses potential land use impacts associated with division of an established community and consistency with relevant land use plans, policies and regulations adopted for the purpose of avoiding or mitigating an environmental impact.
- **Section 3.12—Noise:** Addresses potential noise impacts during construction and at project buildout from mobile and stationary sources on sensitive receptors. The section also addresses potential impact related to groundborne vibration and groundborne noise.
- **Section 3.13—Public Services:** Addresses potential impacts of the proposed project upon public services, including fire protection, law enforcement, schools, parks, recreational facilities, and library facilities in terms of the need to provide new or physical alter facilities in order to maintain acceptable service ratios, response times, or other performance objectives.
- **Section 3.14—Transportation:** Addresses potential impacts related to the local and regional roadway system with respect to Vehicle Miles Traveled (VMT) and public transportation, bicycle, and pedestrian access. Also includes a non-CEQA operational analysis for informational purposes.
- **Section 3.15—Tribal Cultural Resources:** Addresses potential project impacts related to tribal cultural resources.
- **Section 3.16—Utilities and Services Systems:** Addresses potential impacts related to service providers, including water supply, stormwater, wastewater, solid waste, and energy (electric and natural gas) providers and telecommunications, with respect to the proposed project's potential to require or result in the construction of new or expanded infrastructure.
- **Section 3.17—Wildfire:** Addresses potential impacts related to wildfire including lands within State responsibility areas and lands classified as very high fire hazard severity zones.

- **Chapter 4: Effects Found not to be Significant.** This Chapter contains analysis of topical sections not addressed in Chapter 3.
- **Chapter 5: Other CEQA Considerations.** This Chapter provides a summary of significant environmental impacts, including unavoidable and growth-inducing impacts, as well as significant irreversible environmental changes.
- **Chapter 6: Alternatives to the Proposed Project.** This Chapter compares impacts of the project with four land use project alternatives: the No Project Alternative, Outside Storage Allowable Use Alternative, and the Agricultural Protection Alternative**.** An environmentally superior alternative is identified. In addition, alternatives initially considered but rejected from further consideration are discussed.
- **Chapter 7: Persons and Organizations Consulted/List of Preparers.** This Chapter contains a list of persons and organizations that were consulted during preparation of the Draft EIR. This Chapter also contains a list of authors who assisted in preparation of the Draft EIR by name and affiliation.

- **Appendices.** The Draft EIR appendices include notices and other procedural documents pertinent to the Draft EIR, as well as supporting technical materials. The following supporting materials and technical studies and analyses were prepared for the proposed project in support of preparation of this Draft EIR**:**
  - Air Quality/Greenhouse Gas Emissions/Energy Analysis
  - Biological Resources Assessment
  - Phase I Cultural Resources Assessment
  - Paleontological Records Research and Review
  - Noise Analysis
  - Traffic Impact Study and VMT Analysis Memorandum
  - Review of Applicant-prepared Studies
    - Phase I Environmental Site Assessments
    - Limited Site Investigation
    - Flood Protection Technical Memorandum
    - Geotechnical Engineering Report
    - Water Supply Assessment

1.5 - Documents Incorporated by Reference

As permitted by CEQA Guidelines Section 15150, this Draft EIR has referenced, among other things, several technical studies, analyses, and previously certified environmental documentation. Information from relevant documents, which have been incorporated by reference, has been briefly summarized in the appropriate section(s), where possible or briefly described if the data or information cannot be summarized. Where all or part of another document is incorporated by reference, the incorporated language shall be considered to be set forth in full as part of the text of this Draft EIR. The documents and other sources that have been used in the preparation of this Draft EIR include but are not limited to:

- City of Tracy General Plan
- City of Tracy General Plan EIR (State Clearinghouse [SCH] No. 992122069)
- City of Tracy Supplemental General Plan EIR (SCH No. 2008092006)
- City of Tracy Zoning Code
- City of Tracy 2015-2023 Housing Element
- Northeast Industrial Area Specific Plan and EIR (SCH No. 95102050)
- Northeast Industrial Area Specific Plan
- Citywide Water System Master Plan
- Wastewater Master Plan
- Citywide Storm Drainage Master Plan
- Urban Water Management Plan for the City of Tracy
- San Joaquin County General Plan
- San Joaquin County General Plan EIR (SCH No. 2013102017)
- San Joaquin County Code of Ordinances

The City of Tracy General Plan, City of Tracy General Plan EIR, City of Tracy Zoning Code, and the referenced documents and other sources used in preparation of the EIR can be viewed here: https://www.cityoftracy.org/our-city/departments/planning/specific-plans-environmental-impact-reports-and-initial-studies. The above-referenced documents and other sources used in the preparation of the Draft EIR will also be available to the public for inspection at the addresses shown in Section 1.3.2 in accordance with CEQA Guidelines Section 15150(b).

CHAPTER 2: PROJECT DESCRIPTION

2.1 - Overview

The Tracy Alliance Group, Suvik Farms, LLC, and Zuriakat (co-applicants) are proposing the Tracy Alliance Project (proposed project), which consists of the development of up to 3,352,320 square feet of warehouse and distribution and related development on a total of approximately 191.18 acres comprising six parcels. The six parcels consist of two Tracy Alliance parcels (totaling approximately 122.44 acres), three Suvik Farms, LLC parcels (totaling approximately 46.61 acres), and one Zuriakat parcel (approximately 22.17 acres).

The project site is within unincorporated San Joaquin County adjacent to the City of Tracy's northeastern city limits and adjacent to the City of Tracy Northeast Industrial (NEI) Specific Plan area. The proposed project would require approval of annexation into the City of Tracy, pre-zoning, an amendment to the NEI Specific Plan, and a Tentative Parcel Maps or Lot Line Adjustment(s) to create final development lots.

Development on the two Tracy Alliance parcels, as proposed by co-applicant Tracy Alliance Group, would consist of approximately 1,849,500 square feet of warehouse and distribution space located in three buildings, as well as an approximately 12.44-acre stormwater detention basin with pump station (that would be City owned and managed). Approximately 12.51 acres of the Tracy Alliance land would be reserved to accommodate a portion of a planned interchange at Paradise Road and Interstate 205 (I-205). However, the potential impacts of constructing this future interchange would undergo a separate environmental review process pursuant to the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) once funding is programmed and available and once the ultimate design of the interchange is finalized; accordingly, the construction is not considered part of the proposed project (although the interchange is assumed to be in place as part of the cumulative conditions within the Transportation Impact Analysis prepared by Kimley Horn).

Development plans for the Suvik Farms, LLC parcels (identified as Suvik Farms parcels) and the Zuriakat parcel are not specified at this time. For the purposes of analysis in this Draft Environmental Impact Report (Draft EIR), buildout of these parcels is estimated to consist of a total of approximately 1,502,820 square feet of warehouse and distribution development, consistent with the maximum allowable density per acre identified in the NEI Specific Plan.

The proposed project also includes demolition of existing residential and agricultural buildings, removal of existing trees and crops, on- and off-site road improvements, and grading of approximately 500,000 cubic yards, which would be balanced on-site. Of the 500,000 cubic yards of material graded, approximately 300,000 cubic yards would occur on the Tracy Alliance parcels, approximately 150,000 cubic yards would occur in development of the Suvik Farms parcels, and approximately 50,000 cubic yards would occur in development of the Zuriakat parcel.

The purpose of this Draft EIR is to identify potential environmental impacts of the proposed project. This chapter provides a detailed overview of the project site location and setting, project objectives,

details, characteristics, and construction phasing. It also describes intended uses of the Draft EIR by agencies with discretionary permitting and approval authority over the proposed project, as well as the required discretionary permits and approvals to implement the proposed project.

2.2 - Project Location and Setting

2.2.1 - Location

Regional Location

The City of Tracy (City) is in the northern San Joaquin Valley of California. The City is bordered on all sides by unincorporated San Joaquin County. To the north, the City is roughly bordered by I-205 and agricultural lands, including dairy operations; to the east by the unincorporated community of Banta and other residential and industrial uses; to the south by open space; and to the west by open space and agricultural lands (Exhibit 2-1). The City covers 26 square miles and has historically been a semi-rural residential community with many light industrial uses such as warehouse, logistics, and distribution facilities. Major roadway networks including I-580, I-205, and I-5 provide regional access to the City and surrounding areas.

Local Setting

The project site is located at the northeast corner of Grant Line Road and Paradise Road (see Exhibit 2-2.). The site is within unincorporated County land adjacent to the northeastern city limits and within the City's Sphere of Influence (SOI) (10-year planning horizon). The project site is directly east of the City's NEI Specific Plan boundary. The project site lies at United States Geological Survey (USGS) Union Island 7.5-minute Quadrangle Section 22, 23, and 24 (and El Pescadero Land Grant) Township 2 South, Ranch 5 East (Latitude 37°45'33" North; Longitude 121°23'07" West). The site is bound by I-205 to the north, California Avenue to the northeast, Grant Line Road to the south, and Paradise Road to the west (see Exhibit 2-2). The site is currently accessed from Grant Line Road and Paradise Road. Paradise Road runs north/south and crosses I-205. No on- or off-ramps exist at the intersection of I-205 and Paradise Road.

2.2.2 - Existing Project Site Characteristics

The project site consists of six parcels, as shown in Exhibit 2-3 and listed in Table 2-1. In this Draft EIR, parcels may be referenced by Assessor's Parcel Number (APN) or the name of the current owner (e.g., APN 213-170-14 is also referenced as the Zuriakat parcel).

Table 2-1: Existing Parcels

Assessor's Parcel Number	Parcel Naming Convention	Address	Ownership/Applicant	Acreage (approx.)
213-170-14	Zuriakat Parcel	6050 California Avenue	Zuriakat/Not Applicable	22.17
213-170-24 213-170-25 213-170-26	Suvik Farms Parcels	6103 Grant Line Road 6281 Grant Line Road 6301 Grant Line Road	Suvik Farms/Souza Realty and Development	31.67 11.70 3.24

Assessor's Parcel Number	Parcel Naming Convention	Address	Ownership/Applicant	Acreage (approx.)
213-170-27 213-170-48	Tracy Alliance Parcels	6599 Grant Line Road Grant Line Road (no street number)	Tracy Alliance/Tracy Alliance Group Pacific T&T Company/Tracy Alliance Group	122.39 0.05
			Total	**191.22**[1]

Notes:
1. Numbers do not sum to 191.18, total acreage included throughout the Draft EIR, due to rounding.
Source: San Joaquin County. no date. Assessor's Map. Book 213. Page 17.

The project site is relatively flat and low in elevation (approximately 15-30 feet above mean sea level) with a gentle topographic slope in the north-northeast direction.[1,2] The Suvik and Zuriakat parcels do not contain any structures, only row crops.

The Tracy Alliance parcels are currently occupied by two existing approximately 1,000-square-foot residences (one occupied and one vacant), associated landscaping, and nine agricultural outbuildings used for equipment storage and maintenance, all located in the southwest corner of the property. The agricultural buildings began to appear in the 1930s, and an active dairy was present on-site from the 1950s to the 1970s.

Approximately 118 acres of the Tracy Alliance parcels are currently used for row crop production, including alfalfa, winter wheat, and almonds, with a small cattail marsh in an irrigation/drainage channel along the southern side of California Avenue. Several private dirt roads provide access within the project site; an irrigation/drainage channel runs along several of these roads. There is also a paved irrigation/drainage channel between the Tracy Alliance parcels and the Zuriakat parcel. In addition, there are streetlights and power and telecommunication lines in various locations surrounding the project site.

The project site provides suitable foraging habitat with potential to support birds of prey, including Swainson's hawk. Northern portions of the site are within a 100-year floodplain as designated by the Federal Emergency Management Agency (FEMA).[3] There are approximately 188 acres of the project site that are considered Prime Farmland as mapped by the California Department of Conservation Farmland Mapping and Monitoring Program. Prime Farmland has the best combination of features able to sustain long-term agricultural production with sustained high yields.[4] The Suvik Farms parcels are encumbered by a Williamson Act contract, which is set to expire in 2026.[5] Existing site conditions are shown in Exhibit 2-4 through 2-4e.

1 Terracon Consultants, Inc. 2018. Phase I Environmental Site Assessment: Tracy Ridge. December 21.
2 Environmental Assessment Specialists, Inc. 2020. Phase I Environmental Site Assessment: Suvik and Zuriakat Properties, page 5.
3 Federal Emergency Management Agency (FEMA). 2020. National Flood Hazard Layer FIRMette. April 6. Website: https://msc.fema.gov/portal/search?AddressQuery=6281%20Grant%20Line%20Road%20Tracy%2C%20CA#searchresultsanchor. Accessed April 6, 2020
4 California Department of Conservation, Division of Land Resource Protection. 2018. San Joaquin County Important Farmland 2016. May.
5 The Williamson Act enables local governments to enter contracts with private landowners to restrict specific parcels to agricultural or related open space use. In return, landowners receive lower property tax assessments.

2.2.3 - Existing Land Use Designation and Zoning

Land Use Designations

The San Joaquin County General Plan (County General Plan) designates the site as Agriculture-Urban Reserve (A/UR) (Exhibit 2-5), which allows for agricultural uses, farm-related residential use, and open space and parks.[6]

The A/UR designation also reserves areas for urban development if the area is designated for urban development in a city's general plan, and the County determines the area is a reasonable future expansion for the city.

The City of Tracy General Plan (General Plan) designates the project site as Industrial (I) (Exhibit 2-6). Primary land uses allowed under this designation consist of flex/office space, manufacturing, warehousing and distribution, and ancillary uses for workers' needs (e.g., restaurants, parks, consumers services, etc.). The maximum allowed floor area ratio (FAR) is 0.5.[7]

Zoning

The site is zoned General Agriculture, with a minimum parcel size of 40 acres (AG-40) on the County's Zoning Map (Exhibit 2-5). AG zoning preserves agricultural lands for continuation of commercial agricultural enterprises.[8]

The project site is not currently within city limits; accordingly, the City of Tracy does not currently provide a zoning designation for the project site. The co-applicants are requesting approval of a boundary reorganization (to annex the project site into the City of Tracy and detach the project site from the Tracy Rural Fire District), pre-zoning of the project site to a designation of NEI Specific Plan, and an amendment to the boundaries of the NEI Specific Plan to incorporate the project site (as well as any conforming amendments to the NEI Specific Plan to ensure consistency).

2.2.4 - Surrounding Land Uses

The area surrounding the project site has both an agricultural and industrial character. Land uses north of California Avenue consist of single-family homes; there is a cell tower just east of the terminus of California Avenue. A vehicle dealership and agricultural lands are also to the north (north of I-205). East of the project site is agricultural land with associated single-family homes and agricultural structures and outbuildings. Neighboring properties south and west of the project site consist of agricultural lands and industrial warehouses, which are part of the NEI Specific Plan area, with vacant lots interspersed among the agricultural and industrial lands to the west.

[6] Mintier Harnish Planning Consultants (prepared for San Joaquin County). 2016. San Joaquin County General Plan: Policy Document. December.
[7] Design, Community & Environment (prepared for the City of Tracy). 2011. City of Tracy General Plan. February 1.
[8] San Joaquin County. 2001. Ordinance Code of San Joaquin County. Section 9-600.1.

2.3 - Project Objectives

In general, the overall purpose of the proposed project is to provide high-quality industrial warehousing and distribution uses to attract businesses to the City of Tracy and to provide local employment opportunities.

The quantifiable objectives of the Tracy Alliance Project include the following:

- Development of approximately 167 acres of industrial uses (building and parking areas and related improvements);
- Development of approximately 12.44 acres of public facilities (storm basin);
- Reserve approximately 12.51 acres for future planned interchange at Paradise Road and I-205; and
- Build a maximum of 3,352,320 square feet of employment-generating industrial uses.

Additional qualitative objectives for the proposed project are as follows:

- **Employment Opportunities:** Provide for local and regional employment opportunities that take advantage of the project site's high level of accessibility, allow for the expansion of the City's economic base, help improve the jobs/housing balance, and reduce the commute for regional residents.
- **Transportation:** Provide an efficient circulation system, including reserving land for a future planned interchange at Paradise Road and I-205 (construction of the interchange would not be completed as part of the proposed project).
- **Public Facilities and Services:** Provide infrastructure and services to serve the proposed project that meet applicable City standards and integrate with existing and planned facilities.
- **Phasing:** Establish a logical phasing plan designed to ensure that each phase of development would include necessary public improvements required to meet applicable City standards.

2.4 - Project Components

2.4.1 - Land Uses

The proposed project includes demolition of 11 existing residential and agricultural structures on approximately four acres located at the southwestern corner of the Tracy Alliance parcels, removal of all crops and some existing trees, and construction of the following primary components:

- Multiple warehouse buildings totaling up to 3,352,320 square feet that support industrial uses and associated offices;
- An approximately 12.44-acre City owned and managed stormwater detention basin with pump station;

- Ample landscaping consistent with all applicable City requirements; for example, in connection with the individual development proposal for the Tracy Alliance parcels, the relevant site plan reflects approximately 110,000 square feet of landscaped areas; and
- Sufficient on-site parking for both vehicles and trailer spaces consistent with all applicable City requirements; for example, in connection with the individual development proposal for the Tracy Alliance parcels, the relevant site plan reflects approximately 1,134 automobile parking spaces and approximately 572 trailer parking spaces.

Currently, there are no individual development proposals that have been formally submitted for either the Suvik or Zuriakat parcels. Therefore, for purposes of a conservative analysis, this Draft EIR has assumed warehouse and distribution uses on these parcels would be developed to the maximum intensity allowed under the NEI Specific Plan. In addition, as noted above, these parcels would be required to adhere to all applicable development standards and design guidelines, including those related to landscaping and parking.

Exhibit 2-7a depicts a conceptual site plan for the project site as a whole; Exhibit 2-7b depicts a detailed site plan for the Tracy Alliance parcels only. Table 2-2 summarizes locations and square footage for each project component.

Table 2-2: Proposed Development Summary

Tracy Alliance Parcels (APN 213-170-27, -48)				
Land Use (NEI Specific Plan)		**Total Building Area (gross square feet) (approx.)**	**Total Building Area (gross square feet) (approx.)**	**Total (acres) (approx.)**
Light Industrial (LI)				
Building A	Warehouse	948,500	**978,500**	**22.46**
	Office	30,000		
Building B	Warehouse	62,000	**64,000**	**1.47**
	Office	2,000		
Building C	Warehouse	782,000	**807,000**	**18.52**
	Office	25,000		
	Total	**1,849,500**	**–**	
Basin Area		**–**	**–**	**12.44**
			Total	**54.90**
Suvik Farms Parcels (APNs 213-170-24, -25, -26)				
Land Use (NEI Specific Plan)		**Maximum Building (gross square feet)[1] (approx.)**		
Light Industrial (LI)		1,023,660		

Zuriakat Parcel (APN 213-170-14)	
Land Use (NEI Specific Plan)	**Maximum Building (gross square feet)[2] (approx.)**
Light Industrial (LI)	479,160
Total Maximum Building Gross Square Footage = approx. 3,352,320	

Notes:
APN = Assessor's Parcel Number
FAR = floor area ratio
NEI = Northeast Industrial
[1] The maximum building square footage is calculated from the maximum allowable FAR (50 percent) as set forth in the NEI Specific Plan. The total land area is approximately 2,047,320 square feet (47 acres).
[2] The maximum building square footage is calculated from the maximum allowable FAR (50 percent) as set forth in the NEI Specific Plan. The total land area is approximately 958,320 square feet (22 acres).
Source: Tracy Alliance Group 2020.

Light Industrial

The buildings would support warehouse, distribution and related office uses. Based on the proposed uses described below, it is expected that approximately 1,871 employees would work on-site at full buildout.[9]

Warehouse and Distribution

Multiple warehouse and distribution buildings are proposed, totaling up to 3,352,320 square feet. Three warehouse buildings are proposed on the Tracy Alliance parcels, totaling approximately 1,849,500 square feet. As noted above, because no individual development proposals have been formally submitted as of this writing, the number of buildings and other site planning details of the uses to be constructed on the Suvik Farms parcels and Zuriakat parcel are not currently known. For purposes of analysis in this Draft EIR, it is assumed that buildout on the Suvik Farms parcels and Zuriakat parcel would be to the maximum allowable FAR of 0.5, which provides the most conservative estimate of potential development. Although future occupants/tenants are unknown at this time, the buildings would be utilized for light industrial uses as defined by the NEI Specific Plan, which is most commonly warehouse and distribution operations with low employee densities. Using the maximum FAR allowed, and accounting for applicable setbacks, parking, access, circulation, and landscaping requirements, the Suvik Farms parcels could support up to 1,023,660 square feet of development, while the Zuriakat parcel could support up to 479,160 square feet of development.

Office

Office use is permitted within the Light Industrial (LI) designation under the NEI Specific Plan. Each warehouse/distribution building developed under the proposed project is assumed to include ancillary office space for the purpose of facilitating and administering operations of each building and their respective occupants/tenants.

[9] Conversation between Victoria Lombardo, Senior Planner, and Barbara Harb, Economic Development Analyst, City of Tracy in May 2020. Employment data collected by conversations with business owners for various industrial businesses, including warehousing, manufacturing, and distribution centers, and existing building square footage data, averaged.

Parking

Parking would be provided pursuant to applicable parking requirements of Tracy Municipal Code Chapter 10.08 Article 26. For warehouses, storage buildings, and wholesale industrial, parking spaces must be provided at minimum as follows:

- One space per 1,000 square feet of the first 20,000 square feet of gross floor area; plus
- One space per 2,000 square feet of the second 20,000 square feet of gross floor area; and
- An additional one space per 4,000 square feet of the remaining square feet of gross floor area.

Projects are required to provide bicycle parking based on the required automobile parking. For projects with over 40 required spaces, bicycle parking is required at 5 percent of the automobile spaces. The required automobile and bicycle parking per parcel are shown in Table 2-3.

Table 2-3: Required Parking

Tracy Alliance Parcels (APN 213-170-27 and APN 213-170-48)				
Site Area	**Building A**	**Building B**	**Building C**	**TOTAL**
Minimum Auto Parking Required	377	44	316	**737**
Auto Parking Provided	657	57	420	**1,134**
Trailer Parking Provided	319	0	253	**572**
Minimum Bicycle Parking Required	19[1]	3[1]	16[1]	**38**
Suvik Farms Parcels (APNs 213-170-24, -25, and -26)				
Minimum Auto Parking Required	276			
Minimum Bicycle Parking Required	14[1]			
Zuriakat Parcel (APN 213-170-14)				
Minimum Auto Parking Required	140			
Minimum Bicycle Parking Required	7[1]			
Total Auto Parking Required = approx. 1,153	**Total Auto Parking Provided = approx. 1,550**		**Total Bicycle Parking Required = approx. 591**	
Notes: [1] Number of spaces is rounded up. Source: Tracy Alliance Group 2020.				

There would be trailer parking provided on the Suvik Farms and Zuriakat parcels, but the count and location of these spaces is not known at this time.

2.4.2 - Proposed Land Use Designation and Zoning

Land Use Designation

General Plan

As described above and shown on Exhibit 2-6, the City of Tracy General Plan designates the project site Industrial. The project site would be annexed into the City of Tracy upon the Local Agency Formation Commission (LAFCo) approval (as shown in Exhibit 2-8a) and detached from the Tracy Rural Fire District; at such time as the reorganization is complete, the current San Joaquin County General Plan designation (A/UR) would no longer apply to the site. Because the project site is already designated Industrial by the City of Tracy General Plan, no land use re-designation (General Plan Amendment) would be required (as shown in Exhibit 2-8a). Primary land uses allowed under this designation consist of flex/office space, manufacturing, warehousing and distribution, and ancillary uses for workers' needs (e.g., restaurants, parks, consumers services, etc.). The maximum FAR is 0.5.[10] The proposed project would be consistent with this Industrial land use designation.

Northeast Industrial Specific Plan

The project site would be incorporated into the NEI Specific Plan area with approval of the proposed amendment to the NEI Specific Plan, and the NEI Specific Plan would be amended to designate the site LI (and any other conforming amendments therein to ensure consistency). Primary land uses allowed within this designation include warehouse and distribution operations with low employee densities. The LI designation also allows for general commercial uses such as automotive supply or plumbing stores.[11] The proposed NEI Specific Plan land use designation is shown in Exhibit 2-8b.

Zoning

The project site is currently zoned General Agriculture with a minimum parcel size of 40 acres (AG-40) by the Ordinance Code of San Joaquin County. Pursuant to applicable State law, the San Joaquin County LAFCo will require the City to pre-zone the project site in conjunction with the proposed annexation. Therefore, the project site would be pre-zoned NEI Specific Plan, which would take effect upon annexation into the City. Allowable uses within this zoning district are governed by the NEI Specific Plan and light industrial uses, as described in the NEI Specific Plan.[12] The proposed zoning is shown in Exhibit 2-8c.

2.4.3 - Circulation and Access

Vehicle

Primary vehicle access to the project site would be provided from four access points on Grant Line Road and four access points on Paradise Road; the northerly access point along Paradise Road would be for Emergency Vehicle Access (EVA) only. Once the future planned I-205 Interchange at Paradise Road is complete (as part of a separate process to be pursued by the relevant public agencies once funding, design and necessary environmental review is completed), the two northmost access points along Paradise Road (including the EVA) would be slightly modified to accommodate the

[10] Design, Community & Environment (prepared for the City of Tracy). 2011. City of Tracy General Plan. February 1.
[11] City of Tracy. 2012. Northeast Industrial Specific Plan. Pages 10-11. July 17.
[12] City of Tracy. 2016. Tracy Municipal Code Section 10.08.3022 – Northeast Industrial Specific Plan. October 18.

interchange. A second EVA may be added along California Avenue to provide emergency access to the Zuriakat parcel; this site planning decision would occur at such time as an individual development proposal is submitted for this parcel.

A new signalized intersection on Grant Line Road would provide access to a New Private Drive that would facilitate on-site circulation for the warehouse and distribution facilities on the Tracy Alliance parcels as well as access to the Suvik Farms and Zuriakat parcels as shown in Exhibit 2-7a. The New Private Drive, located along the Tracy Alliance parcels' eastern boundary, would also provide access to the proposed stormwater detention basin area. Since no individual development proposals (and thus no detailed site plans) are currently being processed on either the Suvik Farms or Zuriakat parcels, the exact location(s) of access points from the New Private Drive to the Suvik and Zuriakat parcels have not been identified at this time.

Future Interchange

The City of Tracy Transportation Master Plan includes improvements to Chrisman Road, which are planned as part of improvements to the City's expressway system, as well as a future I-205/Paradise Road/Chrisman Road interchange as shown in Exhibit 2-7c. The schedule for implementation of the improvements is not known as this time. Though the proposed project would not trigger the need for these improvements, including the interchange, to facilitate and implement the City of Tracy Transportation Master Plan, the proposed project would set aside approximately 12.51 acres in the northwest corner of the project site, which would be sufficient to accommodate the future planned interchange. The proposed project includes annexation of this land into the City, but does not include any design, analysis, or construction of the future planned interchange. Rather, the potential impacts of constructing this future interchange would undergo a separate environmental review process pursuant to the CEQA and NEPA, once funding is programmed and available and once the ultimate design of the interchange is finalized; accordingly, the construction of the interchange is not considered part of the proposed project. Therefore, pursuant to applicable requirements under CEQA, this Draft EIR includes an evaluation of potential impacts of annexing the future interchange area into the City but does not include evaluation of potential impacts from construction and operation of this future interchange.

Off-site Roadway Improvements

The proposed project would include a westbound right-turn lane at the intersection of Grant Line Road and North MacArthur Drive with a right-turn overlap of the signal phase. The proposed project would also include an additional second westbound left turn lane at the intersection of Chrisman Road and Eleventh Street and the signal timing be modified to allow a lagging phase for the eastbound left turn and northbound left turn.

Transit

Bus

The City provides fixed-route bus service (TRACER) within city limits.

San Joaquin Regional Transit District (RTD) provides regional fixed-route bus service within the Stockton Metropolitan Area and greater County.

The closest bus stop to the project site is approximately 0.5 mile west at the intersection of Grant Line Road and North Chrisman Road. The stop is served by San Joaquin RTD County Hopper bus Route 797, connecting to Lathrop, Stockton, and Manteca on weekends.[13] The next nearest bus stop is 1.59 miles to the west at the Shops at Northgate Village. The stop is served by TRACER Route E, connecting to the Tracy Transit Station, and San Joaquin RTD County Hopper bus Routes 90 and 97, connecting to Lathrop and Stockton.[14,15,16]

In addition, Americans with Disability Act (ADA) Paratransit Service by TRACER is a door-to-door service available to City residents that complete a certification for the service and visitors with ADA documentation. The service is designed to serve ADA/Medicare passengers and those 65 and older. The TRACER Paratransit Service area boundary is adjacent to the southern and western project site boundaries.[17]

Rail

The San Joaquin Regional Rail Commission (SJRRC) provides the Altamont Corridor Express commuter rail transit service between Stockton and San José. The Tracy Station is the closest Altamont Corridor Express (ACE) station to the project site, which is located at 4800 South Tracy Boulevard, approximately 4.70 miles southwest of the project site and would provide ACE service to the project site. A westbound train runs in the morning, arriving in Tracy between 4:51 a.m. and 7:36 a.m., Monday to Friday, and between 6:36 a.m. and 9:46 a.m. on Saturdays. An eastbound train runs in the evening, leaving Tracy between 5:11 p.m. and 8:14 p.m. Monday to Friday, and at 5:34 p.m. and 8:54 p.m. on Saturdays.[18] TRACER makes connections with most departures and arrivals, providing transit to the Tracy Transit Station and other stops. However, because of the COVID-19 Pandemic, the 7:11 a.m. and 7:36 a.m. and the 6:11 p.m. and 8:14 p.m. trains have been suspended. In addition, all weekend service has been suspended.

Bicycle

In the project site and vicinity, there is a Class I paved multiuse bicycle path, which is separated from North MacArthur Drive from the I-205 business loop to I-205, spanning approximately 1.8 miles and extending eastward along the northern side of East Pescadero Avenue for less than 0.5 mile.[19] A Class II bicycle lane runs the same length on North MacArthur Drive and ends at the North MacArthur Drive/East Pescadero Avenue intersection. The Class II bicycle lane extends westward on East Pescadero Avenue for approximately 950 feet. There is also a Class II bicycle lane along Grant

[13] San Joaquin Regional Transit District (RTD). 2018. Route 797 Schedule. March 11. Website: http://sanjoaquinrtd.com/route-797/. Accessed April 20, 2020.
[14] City of Tracy. 2019. TRACER Route Map. October. Website: https://www.ci.tracy.ca.us/documents/Route_Map_October_2019.pdf. Accessed: April 6, 2020.
[15] San Joaquin Regional Transit District (RTD). 2014. Route 90 Map. August 10. Website: http://www.sanjoaquinrtd.com/maps_and_schedules/GIF/90.gif. Accessed: April 6, 2020.
[16] San Joaquin Regional Transit District (RTD). 2013. Route 97 Map. August 11. Website: http://www.sanjoaquinrtd.com/maps_and_schedules/GIF/97.gif. Accessed: April 6, 2020.
[17] City of Tracy. 2017. TRACER Paratransit System Map. November 1.
[18] San Joaquin Regional Rail Commission (SJRRC). 2020. Schedules & Fares. Website: https://acerail.com/schedules/. Accessed April 8, 2020.
[19] A Class I bikeway is a completely separated right-of-way for the exclusive use of bicycles and pedestrians with cross flow of motorized traffic minimized. (Source: California Department of Transportation. 2018. Highway Design Manual, 6th Edition.)

Line Road from the Joe Pombo Parkway/Grant Line Road intersection that spans approximately 3.80 miles to the east and terminates at the Chabot Court/Grant Line Road intersection.[20,21]

As part of the proposed project's frontage improvements, it is anticipated that the proposed project would construct a Class I path (that would accommodate both pedestrians and bicycles) per the Transportation Master Plan (TMP) for both Grant Line Road and Paradise Road. Pursuant to the applicable parking requirements of Tracy Municipal Code Chapter 10.08 Article 26, the proposed project would provide approximately 59 bicycle parking spaces as described above. Bicycle racks (single-sided or double sided racks, or equivalent) would be located near the office entrances of each building in order to provide for the secured parking of bicycles. The required spaces for bicycle parking would be evenly distributed among the office locations within each building.

Pedestrian

There are existing sidewalks on the southern side of Grant Line Road, extending eastward from the Grant Line Road/East Paradise Road intersection for approximately 0.25 mile. There is also an existing sidewalk on the west side of Paradise Road, running northward from the existing distribution center entrance at 2795 Paradise Road to the Paradise Road/West Pescadero Avenue intersection; existing sidewalks are also located on both sides of East Paradise Road for approximately 0.7 mile from the Grant Line Road/East Paradise Road intersection to just west of the East Paradise Road/North Chrisman Road intersection. Existing sidewalks along both sides of the entirety of Chabot Court provide a pedestrian connection from East Paradise Road to Grant Line Road. There are no sidewalks along California Avenue. As part of the proposed project's frontage improvements, it is anticipated that the proposed project would construct a Class I path (that would accommodate both pedestrians and bicycles) per the TMP for both Grant Line Road and Paradise Road.

2.4.4 - Design, Landscaping, and Lighting

The NEI Specific Plan includes design guidelines and development standards that regulate site planning and architecture within the NEI Specific Plan area. Specific design details are not known at this time, but the proposed project would be required to conform to the applicable design guidelines and development standards set forth in the NEI Specific Plan, subject to review and approval by the City's Development Services Director. Specific regulations set forth in the NEI Specific Plan are provided in Section 3.11, Land Use and Planning.

Building Design and Height

The NEI Specific Plan requires that attention be given to parts of any buildings visible from adjacent roadways or public parking. Large buildings should have facades that include variations in massing, form, and texture. Continuous surface treatments of a single material should be minimized. Architecture should be used to highlight building entries. Any accessory buildings and enclosures, whether attached or detached from the main building, shall be of similar compatible design and

[20] A Class II bike lane is a striped and signed lane for one-way bicycle travel on a street or highway. (Source: Caltrans. 2018. Highway Design Manual 6th Edition.)

[21] City of Tracy Parks and Community Services Department. 2005. City of Tracy Bikeways Master Plan. April.

materials.[22] The proposed buildings would be designed to adhere to these building design standards and guidelines.

The maximum height for LI uses under the NEI Specific Plan is 60 feet. The proposed buildings would not exceed this height.

Landscaping

Within parking areas on-site, landscaping would be required to conform to the applicable requirements for Off-Street Parking established by Municipal Code Chapter 10.08, Article 26, except where modified by the NEI Specific Plan. Landscaping requirements as set forth in the NEI Specific Plan are summarized in Table 2-4. Table 2-4 assumes parking lot landscaping would be decreased by 50 percent, and that a corresponding increase in perimeter landscaping of 50 percent would be provided to compensate, as allowed in the Municipal Code.[23] These requirements include designing landscapes as extensions of adjacent public right-of-way landscaping as applicable and completing on-site landscaping simultaneous to completion of buildings and other improvements. Additionally, landscaping shall not obstruct sight lines at street or driveway intersections, and parking areas and project frontages shall be screened from public rights-of-way.[24] Additional landscaping guidelines are available in the NEI Specific Plan. The proposed project would be designed to adhere to these landscaping development standards and design guidelines.

Table 2-4: Summary of Applicable Landscaping Requirements

Landscaping Requirement	Industrial Use
Landscaped frontage setback	10 feet
Minimum number of trees in parking area	one tree per five spaces
Percentage of landscaping in parking areas for over: 0-15 cars 16-30 cars 31-60 cars Over 60 cars	 5 percent 5 percent 7.5 percent 10 percent
Source: City of Tracy. 2012. Northeast Industrial Specific Plan.	

Lighting and Signage

Light fixtures would be required to meet all applicable safety standards pursuant to the latest adopted edition of the California Building Code and would be installed throughout the length of the New Private Drive and other portions of the project site pursuant to applicable provisions in the Municipal Code. The NEI Specific Plan recommends that one lighting fixture style be used on all streets. Where possible, light standards would be located in roadway medians.[25]

[22] City of Tracy. 2012. Northeast Industrial Specific Plan. Page 32. July 17.
[23] City of Tracy. 2019. Tracy Municipal Code Section 10.08.3560(g).
[24] City of Tracy. 2012. Northeast Industrial Specific Plan. Pages 33 and 34. July 17.
[25] City of Tracy. 2012. Northeast Industrial Specific Plan. Page 24. July 17.

Signage would be required to conform to the applicable requirements of Municipal Code Chapter 10.08, Article 35, except as modified by the NEI Specific Plan. A site sign program would be prepared and integrated into the total design concept for the proposed project, and all signs would be required to be approved prior to installation. Project signage may be illuminated provided that no flashing, traveling, animated, or intermittent illumination would be used. Such illumination would be confined to the area of the sign except when such illumination is back lighting for an otherwise non-illuminated sign. No sign illumination would cast a glare which is visible from any street.

The proposed project would be designed to adhere to these lighting and signage development standards and design guidelines.

2.4.5 - Infrastructure Improvements

Domestic Water

The City, through its Public Works Department, would supply potable water to the proposed project. In the current adopted City Water System Master Plan, 12-inch water lines have been proposed for continuation north on Paradise Road until West Arbor Avenue, and within the project site along the perimeter of the Suvik Farms parcels.[26] The 12-inch water line in Paradise Road has been extended as planned; planned water lines that would traverse through the project site have not yet been installed**.**

The proposed project would install 10-inch lines to accommodate the level of development proposed on the Tracy Alliance parcels. These lines would connect to the buildings on the Tracy Alliance parcels at several locations (as shown in Exhibit 2-9). Several fire hydrants would be installed surrounding the buildings on the Tracy Alliance parcels and would connect to the 10-inch water lines. At such time as individual development proposal(s) for either the Suvik Farms or Zuriakat parcels are formally submitted to the City, then the location and sizing of water lines would be identified and reviewed by the City as part of subsequent engineering plans, which would be required to meet all applicable requirements and standards including those set forth in the then-current adopted City Water System Master Plan .

Stormwater Drainage

The project site drains generally toward the northeast toward I-205 and into Pescadero Irrigation District facilities; this stormwater does not currently enter into a City-maintained facility. There are no existing stormwater drainage facilities on the project site.[27]

The proposed project includes construction of a stormwater detention basin on-site as identified in the current adopted City of Tracy Citywide Storm Drainage Master Plan.[28] The proposed approximately 12.44-acre stormwater detention basin with a pump station would be located along the northeast site boundary. Following its construction, the basin would be dedicated to and managed by the City.

[26] West Yost Associates. 2012. City of Tracy Citywide Water System Master Plan, Figure 8-2 on Page 8-25. December.
[27] Stantec. 2012. City of Tracy Citywide Storm Drainage Master Plan. November.
[28] Stantec. 2012. City of Tracy Citywide Storm Drainage Master Plan. Figure 5-1a. November.

The proposed stormwater detention basin would be in the northern portion of the project site, along the terminus of California Avenue, and would connect to the City's proposed NEI detention basin west of the project site (see Exhibit 3.10-1). It is anticipated that the NEI detention basin would be completed prior to operation of any buildings on the project site and would therefore accept stormwater from the proposed project.

Following Phase 1 (Tracy Alliance parcels), each subsequent applicant for its respective individual development proposal within the project site would be required to confirm that the proposed project's on-site stormwater detention basin and bioretention treatment areas could accommodate project flows to the satisfaction of the City and that post-development stormwater flow rates would not substantially exceed predevelopment rates pursuant to the applicable C.3 requirements. The proposed project's on-site stormwater detention basin would be required to comply with applicable provisions of the Multi-Agency Post-Construction Stormwater Standards Manual which identifies BMPs to control the potential pollutant load of stormwater runoff. Additionally, Chapter 11.32 of the Municipal Code requires each applicant for its respective individual development proposal within the project site to pay applicable stormwater impact fees in connection with their respective development proposals, which would ensure the operation, maintenance, and replacement of existing and future stormwater facilities. Each applicant for its respective individual development proposal within the project site would be required to prepare a clearly defined Operations & Maintenance (O&M) Plan in connection with its respective individual development proposal to ensure that installed stormwater treatment measures and hydromodification management controls are inspected and properly operated and maintained for the life of the relevant individual development proposal.

The proposed project would construct a 12-inch forced main storm drain line along the corner of I-205 east and Paradise Road (see Exhibit 2-9, Exhibit 2-10a and 2-10b) to connect the proposed on-site detention basin to the City's NEI detention basin (Exhibit 3.10-1) adjacent to the western boundary of the project site. Project discharge into the on-site detention basin would be held until the NEI detention basin is drained enough to accept inflow; all stormwater would eventually discharge into the Eastside Channel.

Bioretention treatment areas would intermittently surround the buildings on the Tracy Alliance parcels and be interspersed throughout the parking lots (Exhibit 2-10b); similar features are anticipated for the remaining portions of the project site, although the design of these improvements would be finalized when individual development proposals for the remainder of the project site are submitted to the City. On-site storm drain lines within the Tracy Alliance parcels would be 12 inches and would connect bioretention treatment areas to the proposed on-site detention basin; similar features are anticipated for the remaining portions of the project site, although the design of these improvements would be finalized when individual development proposals for the remainder of the project site are submitted to the City.

Sanitary Sewer

The proposed project would include connections to the existing City sanitary sewer system operated by the Public Works Department via the existing wastewater line beneath Paradise Road (see Exhibit

2-9).[29] An existing 15-inch sanitary sewer line is located within the Paradise Road right-of-way and an existing 10-inch sanitary sewer line is located within Grant Line Road and have sufficient capacity to accommodate the development as proposed. Based on the relevant site plan submitted in connection with the individual development proposal for the Tracy Alliance parcels, these lands would be served as follows:

- **Building A:** would be served via two proposed 8-inch sanitary sewer lines that would each connect to the existing 15-inch sanitary sewer line in Paradise Road.
- **Building B:** would be served by a proposed 6-inch sanitary sewer line that would traverse the northern side of Building A, connecting to the existing 15-inch sanitary sewer line in Paradise Road.
- **Building C:** would be served by two sanitary sewer lines: (1) a proposed 6-inch sanitary sewer line that would connect to an existing 10-inch sanitary sewer line in Grant Line Road, and (2) a proposed 8-inch sanitary sewer line that would connect to the existing 15-inch sanitary sewer line in Paradise Road.

Since no individual development proposals (and thus no site plans) have been submitted to the City for the Suvik Farms and Zuriakat parcels as of this writing, the exact location and sizing of an on-site sanitary sewer system for the development to occur on these lands are not currently known. However, this information would be identified and reviewed by the City of Tracy as part of subsequent engineering plans when applications for their respective individual development proposals are submitted for these parcels, which would be required to meet all applicable requirements and standards.

Solid Waste and Recycling Collection

The City, through its Public Works Department, provides solid waste and recycling services for areas within city limits and certain surrounding County areas. The Public Works Department has a partnership with Tracy Disposal Service Company to provide residential and commercial solid waste collection and disposal, including recycling and organics services.[30,31] Garbage is collected once a week, and recycling and yard waste are collected on alternating weeks.[32]

Solid waste generated by the proposed project would be accommodated at the Tracy Material Recovery Facility & Solid Waste Transfer (MRF), and then hauled to the Foothill Sanitary Landfill on North Waverly Road east of Tracy. On a designated day, Tracy Disposal Service Company collects and transports solid waste to the MRF.

[29] De Novo Planning Group. 2019. Tracy Municipal Services Review. July.
[30] City of Tracy. 2020. Recycling & Solid Waste. Website: https://www.ci.tracy.ca.us/?navId=688. Accessed April 9, 2020.
[31] Tracy Delta Solid Waste Management, Inc. Website: https://www.tdswm.com/. Accessed April 9, 2020.
[32] City of Tracy. 2020. Garbage & Recycling Schedule. Website: https://www.ci.tracy.ca.us/?navId=700. Accessed April 16, 2020.

Power and Telecommunications

Electricity and natural gas services for the proposed project would be provided by Pacific Gas and Electric Company (PG&E). There is a natural gas pipeline under Grant Line Road, as well as an aboveground electric transmission line.[33,34]

Phone and internet services could be provided by various private companies, including AT&T, Xfinity Comcast, and Verizon.

2.4.6 - Phasing and Construction

The proposed project would include construction of multiple buildings in approximately three phases over a period of approximately 36 months (three years) starting in April 2022 and ending in April 2025. The phasing would happen per parcel as shown in Table 2-5:

Table 2-5: Phasing and Construction

Activity	Start Date	End Date
Phase 1 (Tracy Alliance parcels)		
Site Improvements	4/2022	12/2022
Building(s) Constructed	9/2022	3/2023
Operations	4/2023	N/A
Phase 2 (Suvik Farms parcels)		
Site Improvements	4/2023	12/2023
Building(s) Constructed	9/2023	3/2024
Operations	4/2024	N/A
Phase 3 (Zuriakat parcel)		
Site Improvements	4/2024	12/2024
Building(s) Constructed	9/2024	3/2025
Operations	5/2025	N/A
Notes: The timing for commencement of construction was based on available information at the time that environmental review commenced. To the extent construction commences later than assumed, this Draft EIR reflects a conservative analysis given that technological advances and more stringent regulations governing air quality and greenhouse gas (GHG) emission impacts would be anticipated to further decrease emissions. Source: Tracy Alliance Group 2020.		

[33] Pacific Gas and Electric Company (PG&E). 2020. Gas Transmission Pipelines. Website: https://www.pge.com/en_US/safety/how-the-system-works/natural-gas-system-overview/gas-transmission-pipeline/gas-transmission-pipelines.page. Accessed April 9, 2020.

[34] California Energy Commission. California Electric Infrastructure App. Website: https://cecgis-caenergy.opendata.arcgis.com/app/ad8323410d9b47c1b1a9f751d62fe495. Accessed April 9, 2020.

However, for purposes of a conservative analysis, this Draft EIR considers both sequential and concurrent phasing options for the proposed project, as detailed more fully in Section 3.3, Air Quality, and Section 3.8, Greenhouse Gas Emissions.

Approximately 500,000 cubic yards of material would be cut and rebalanced across the entire site as part of the three phases of development. As specific construction schedules and detailed information for the development of the Suvik and Zuriakat parcels is not known at this time, conservative default assumptions were used for the purpose of analyzing and modeling potential construction durations and equipment for the proposed project.

2.5 - Required Actions and Approvals

The following discretionary approvals and permits are required by the City for implementation of the proposed project**:**

- EIR Certification
- Pre-zoning to Northeast Industrial Specific Plan
- Northeast Industrial Specific Plan Amendment
- Development review permit(s)
- Tentative Parcel Map or Lot Line Adjustment(s) as needed to create final development lots
- Resolution of City Initiation of Reorganization Proceedings
- Cancellation of the Williamson Act Contract on the Suvik Farms parcels (if required)

In addition, the ministerial actions by the City for implementation of the proposed project may include, but are not limited, to the following:

- Demolition permits
- Grading permits
- Building permits
- Certificates of occupancy

In addition to the City, several other agencies will serve as Responsible and Trustee Agencies, pursuant to CEQA Guidelines Section 15381 and Section 15386, respectively. This Draft EIR provides environmental information that may be required to grant approvals or to support coordination with other agencies as part of project implementation. These agencies may include, but are not limited to, the following:

- United States Army Corps of Engineers
- United States Fish and Wildlife Service
- California Department of Fish and Wildlife
- California Department of Transportation
- California Public Utilities Commission
- Central Valley Regional Water Quality Control Board
- County of San Joaquin
- San Joaquin Local Agency Formation Commission

Discretionary and ministerial actions by other agencies that are necessary to implement the proposed project may include the following:

- Approval of proposed reorganization to accomplish the annexation of the project site into the City of Tracy (San Joaquin LAFCo) and detachment of the project site from Tracy Rural Fire District (San Joaquin LAFCo)
- Coverage under General Construction Stormwater Permit (California State Water Resources Control Board/Central Valley Regional Water Quality Control Board)
- Approval of Indirect Source Review (San Joaquin Valley Air Pollution Control District)
- Issuance of Encroachment Permits for roadway or utility improvements within facilities under the jurisdiction of the California Department of Transportation (Caltrans) or the County of San Joaquin may also be necessary.

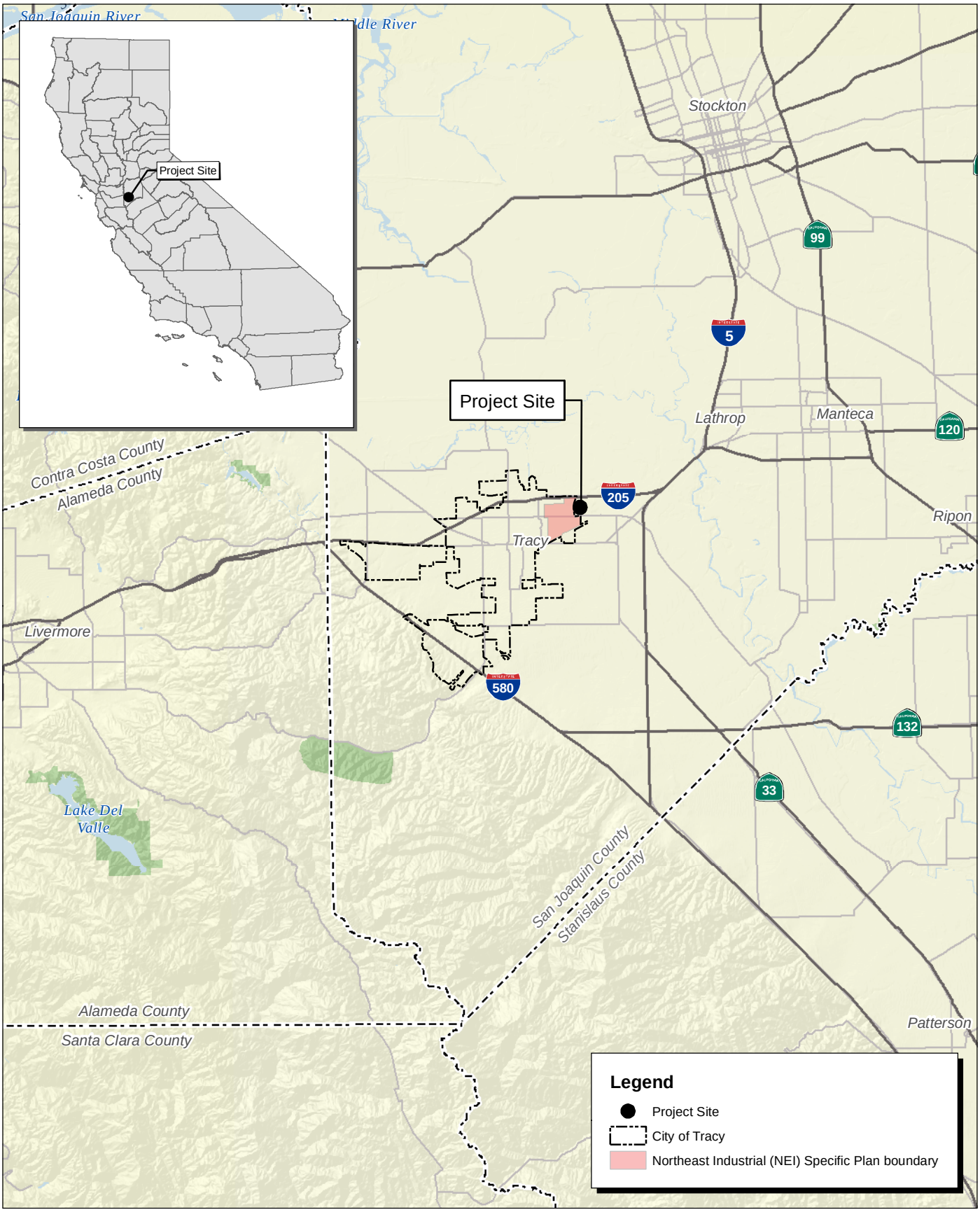
2.6 - Intended Uses of This Draft EIR

This Draft EIR has been prepared by the City to assess the potential environmental impacts that may arise in connection with actions necessary to implement the proposed project. Accordingly, consistent with the CEQA mandate that prefers finality and seeks to avoid additional unnecessary environmental review, once this EIR is certified by the City Council, it is anticipated that it will be utilized to provide CEQA coverage for future discretionary actions, entitlements and permits considered by the City as well as other public agencies that have discretionary authority over certain aspect(s) of the proposed project to the maximum extent permitted under all applicable laws and regulations including, without limitation, CEQA Guidelines Section 15162, 15164 and/or 15183.

This document will also serve as a basis for soliciting comments and input from members of the public, other interested organizations, and public agencies regarding the proposed project. The Draft EIR will be circulated for 45 days, during which period comments concerning analysis contained in the Draft EIR should be sent to:

Victoria Lombardo, Senior Planner
City of Tracy
Development Services
333 Civic Center Plaza
Tracy, CA 95376
Tel: 209.831.6428
Email: victoria.lombardo@cityoftracy.org

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Source: Census 2000 Data, The CaSIL.

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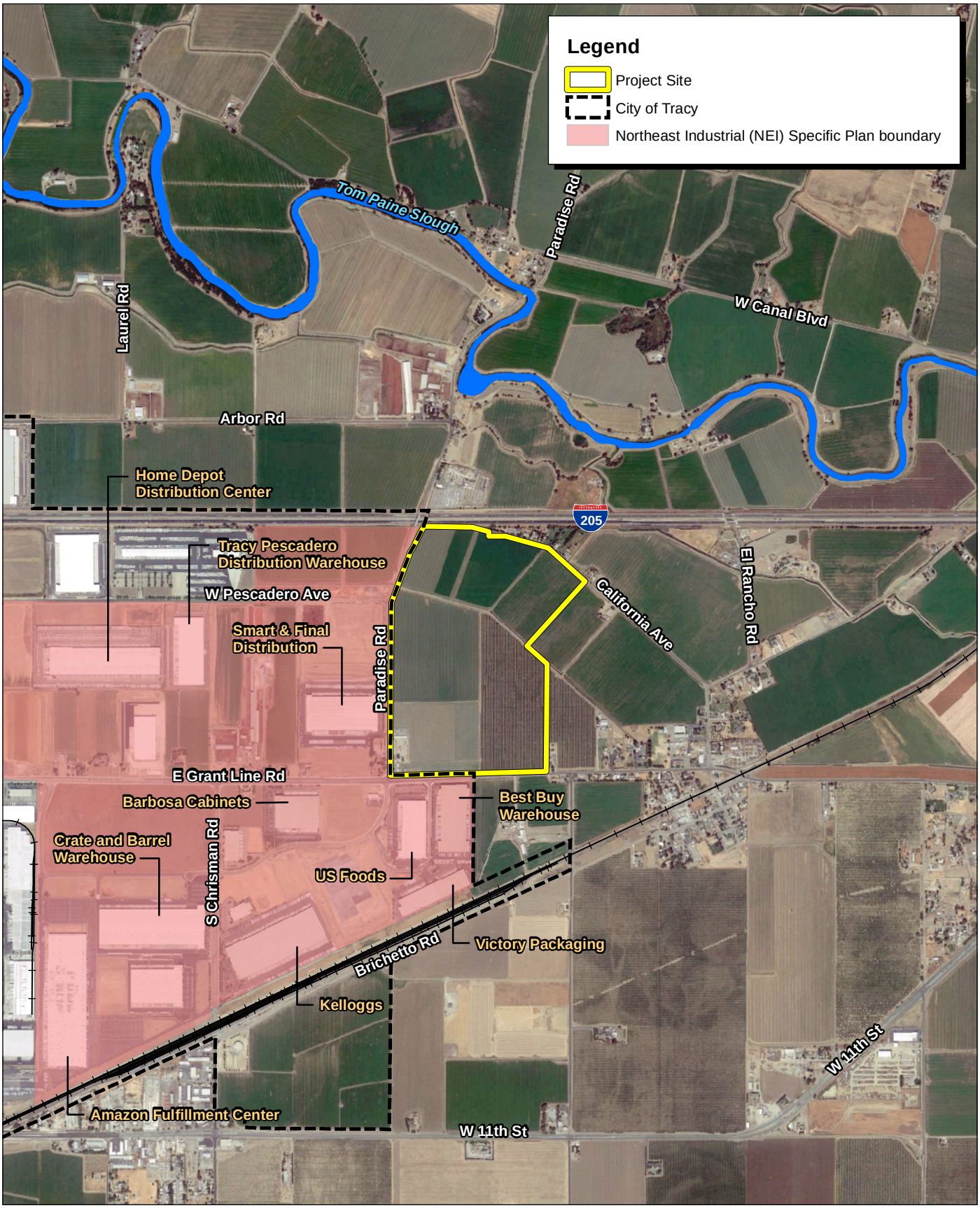
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Exhibit 2-1
Regional Location Map

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CITY OF TRACY
TRACY ALLIANCE PROJECT
ENVIRONMENTAL IMPACT REPORT

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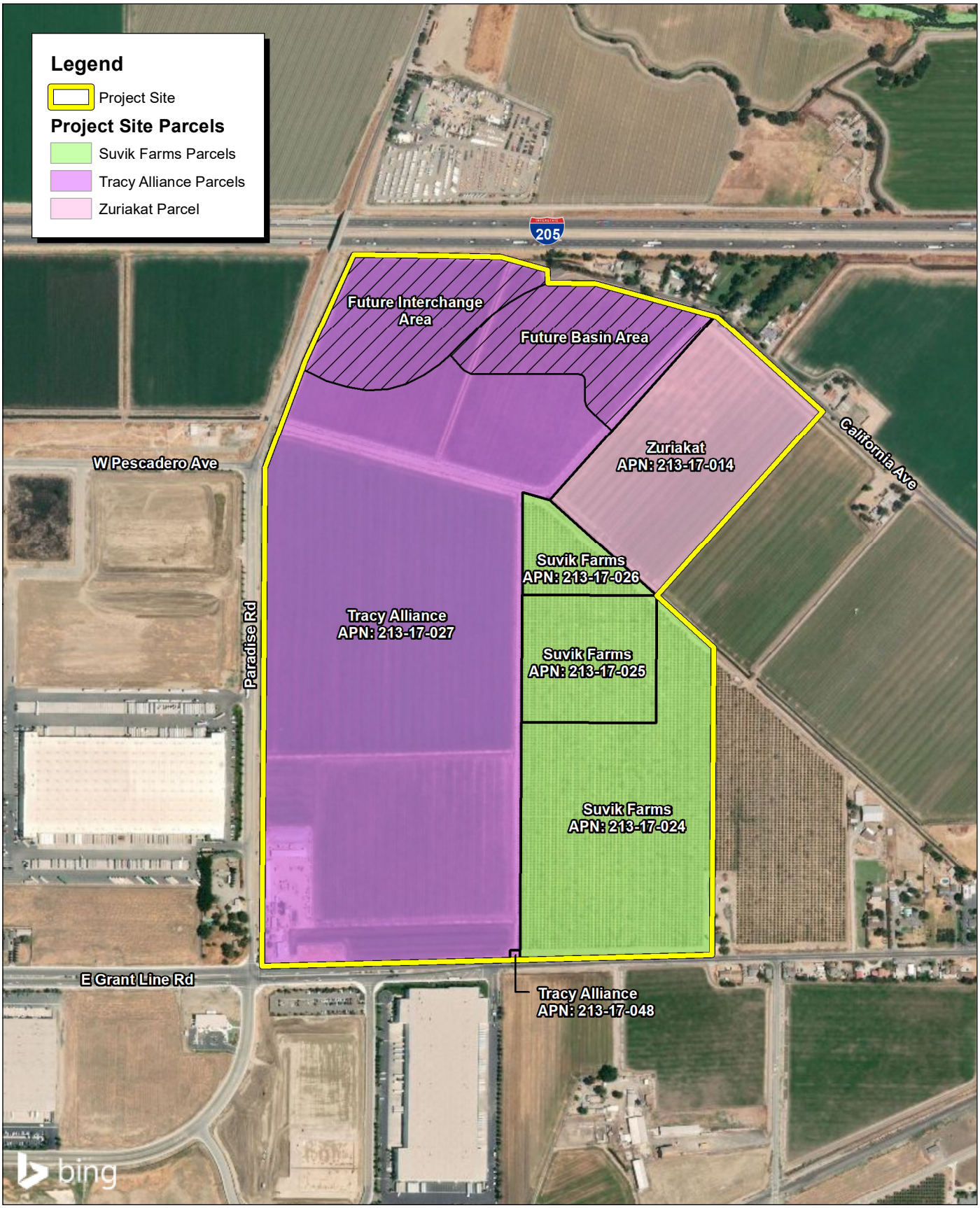
Source: Google Earth Aerial Imagery, August 2018.

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Exhibit 2-2
Local Vicinity Map

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Source: Bing Aerial Imagery. County of San Joaquin.

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Exhibit 2-3
Project Parcel Map

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Photograph 1: View of the project site from California Avenue; facing south.



Photograph 2: View of the project site from the northwest corner of future interchange area; facing southeast.



Photograph 3: View of drainage ditch running along the western side of the future interchange area; facing south.



Photograph 4: View of dirt road entering the project site at the intersection of Paradise Road and West Pescadero Avenue; facing east.

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Exhibit 2-4a
Existing Site Conditions

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Photograph 5: View of the project site from the western Tracy Alliance Parcel boundary; facing east.



Photograph 6: Overview of farm complex located in the southwest corner of the project area; facing southeast.



Photograph 7: View from the southwest corner of the project site; facing northeast.



Photograph 8: View of dirt road separating the Tracy Alliance and Suvik Farms Parcels from the southern project boundary, facing north.

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Exhibit 2-4b
Existing Site Conditions

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Photograph 9: View from the southwest corner of the project site; facing northwest.



Photograph 10: View of irrigation ditch and dirt road running along the northern boundary of the Suvik Farms Parcels; facing northwest.



Photograph 11: View along the southeastern edge of the Zuriakat Parcel; facing northeast.



Photograph 12: View from the northeast corner of the project site; facing southwest.

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Exhibit 2-4c
Existing Site Conditions

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Photograph 13: View of northern boundary of project site along California Ave; facing northwest.



Photograph 14: View from the northwest corner of the Zuriakat Parcel boundary; facing southwest.



Photograph 15: View from the center of the project site; facing north.



Photograph 16: View from the center of the project site; facing southeast.

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Exhibit 2-4d
Existing Site Conditions

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Photograph 17: View from the center of the project site; facing south.



Photograph 18: View from the center of the project site; facing west.

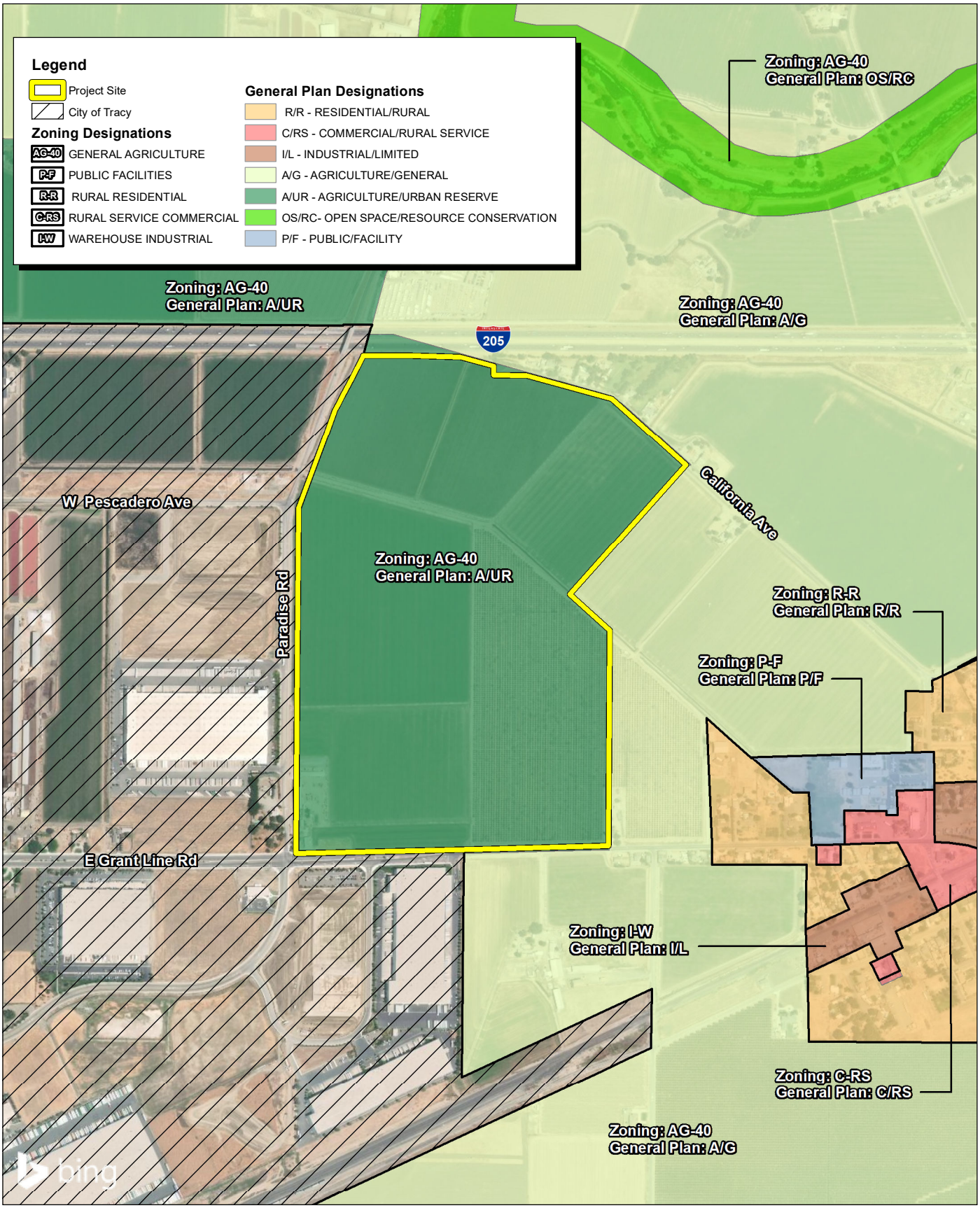


Photograph 19: View of the residences at the southwest corner of the project site; facing west.

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Exhibit 2-4e
Existing Site Conditions

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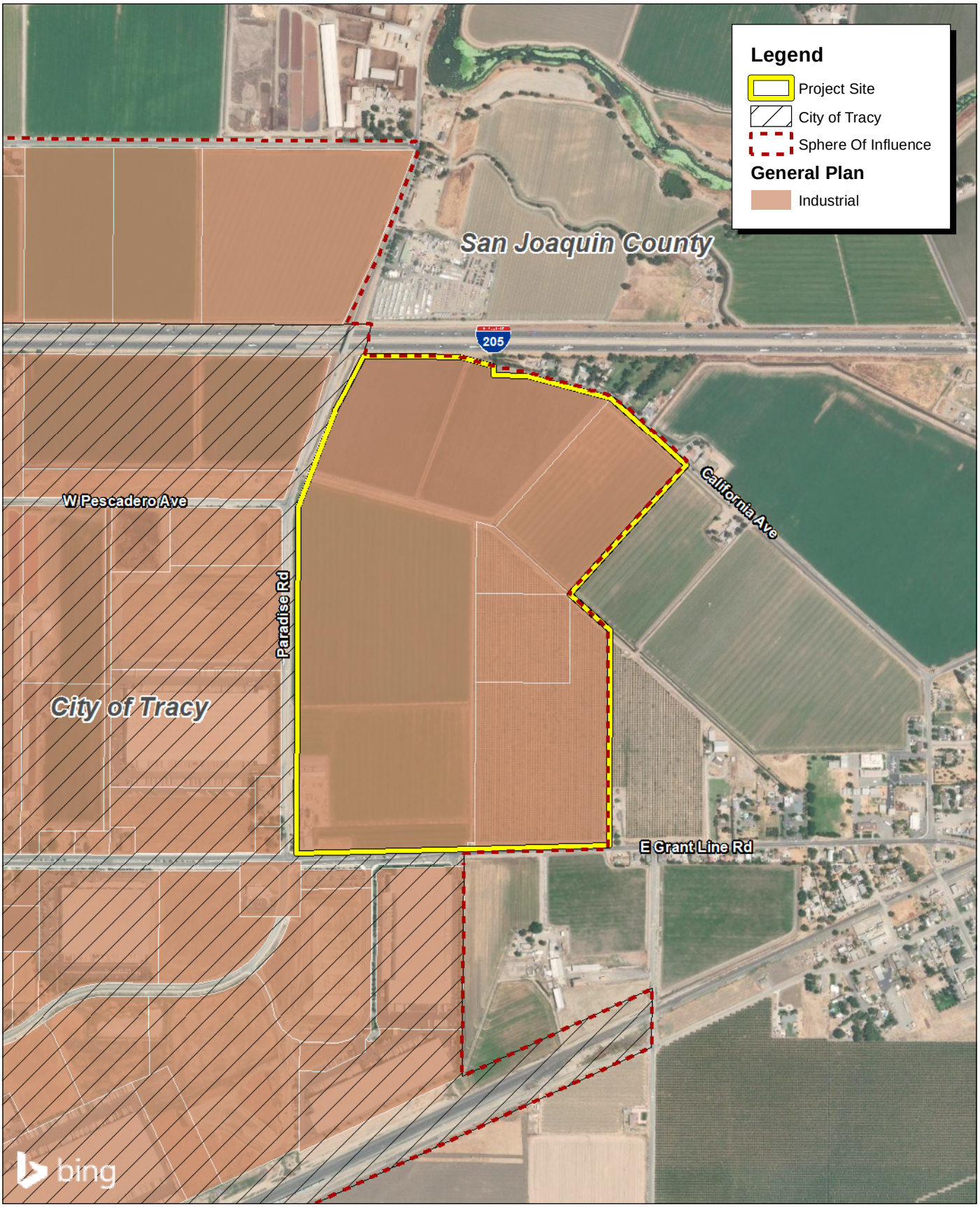
Source: Bing Aerial Imagery. San Joaquin County GIS Data, 2020.

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Exhibit 2-5
San Joaquin County General Plan Land Use and Zoning Designations

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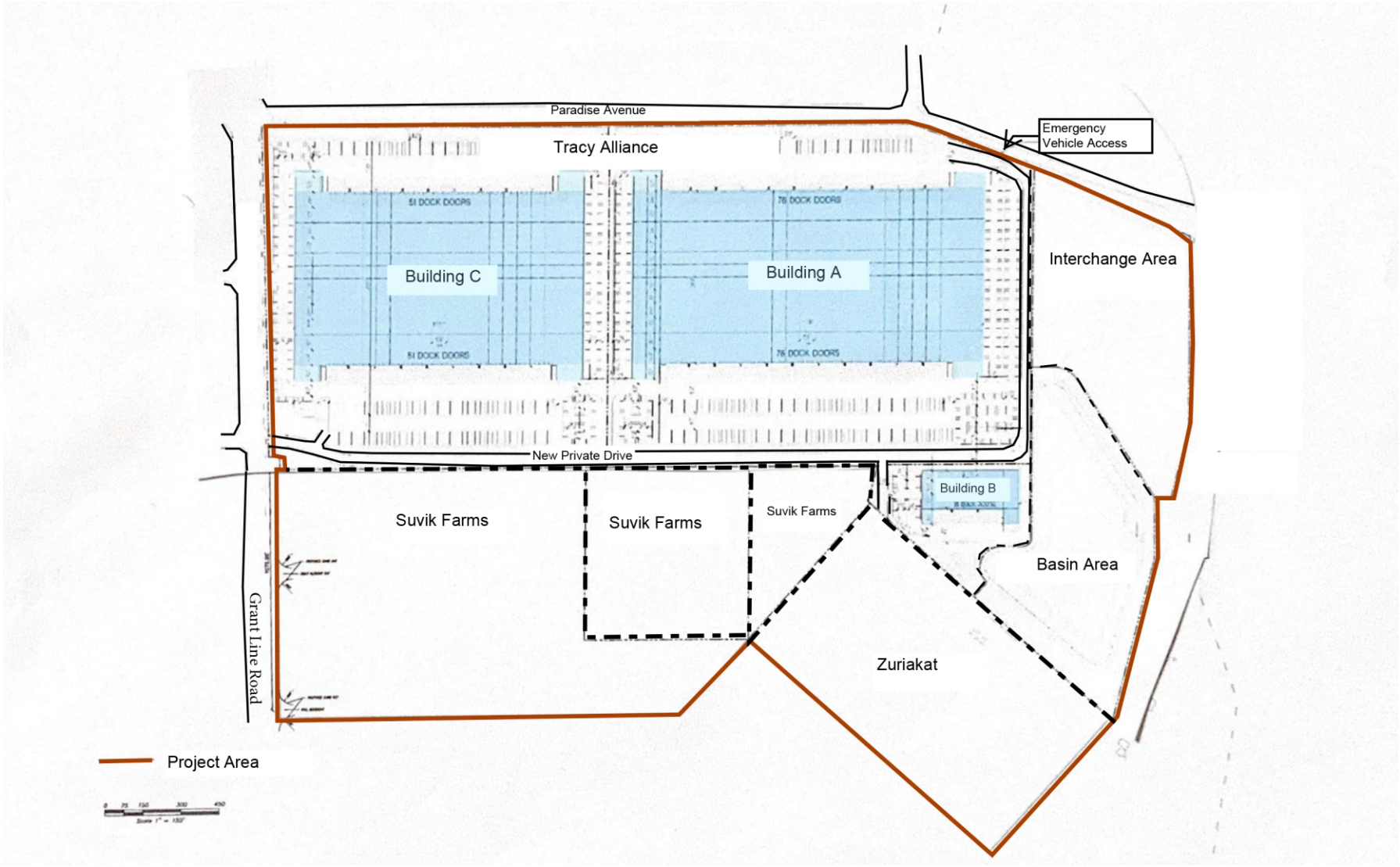
Source: Bing Aerial Imagery. City of Tracy. County of San Joaquin.

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Exhibit 2-6
City of Tracy General Plan Designation

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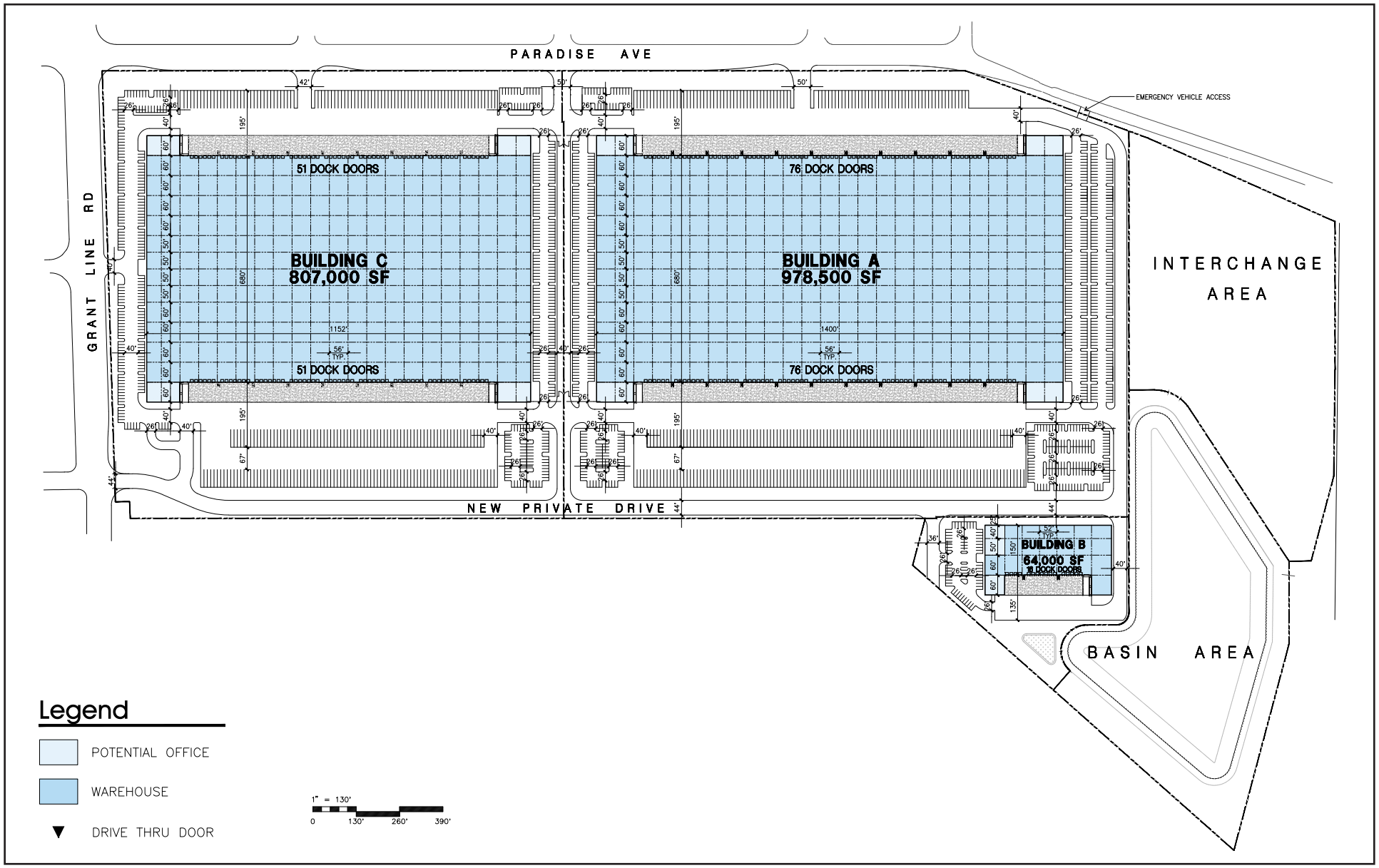


Source: Kier & Wright Civil Engineers & Surveyors Inc., December 2020.

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Exhibit 2-7a
Comprehensive Site Plan

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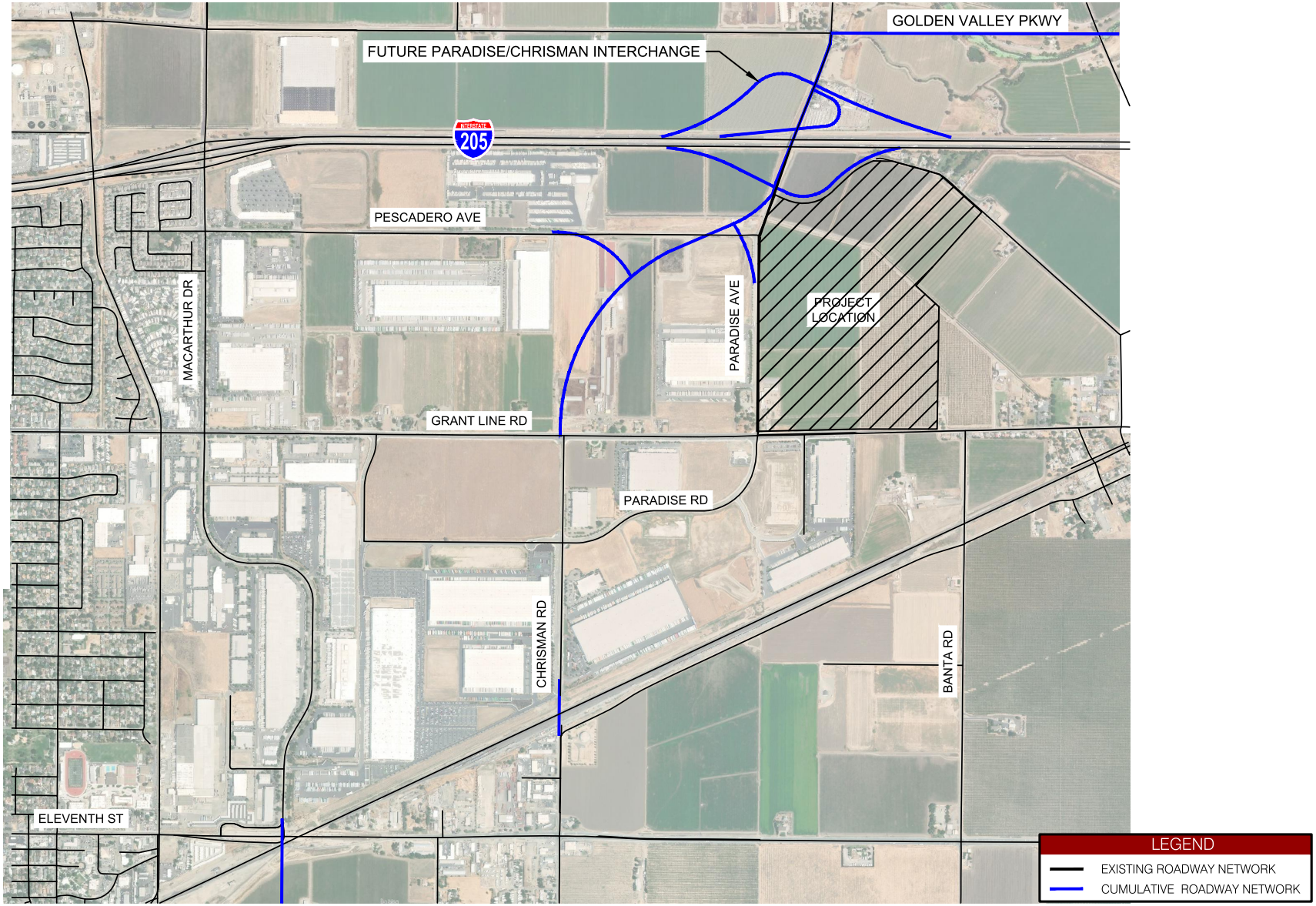


Source: HRA Architecture, December 30, 2020.

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Exhibit 2-7b
Tracy Alliance Parcels Site Plan

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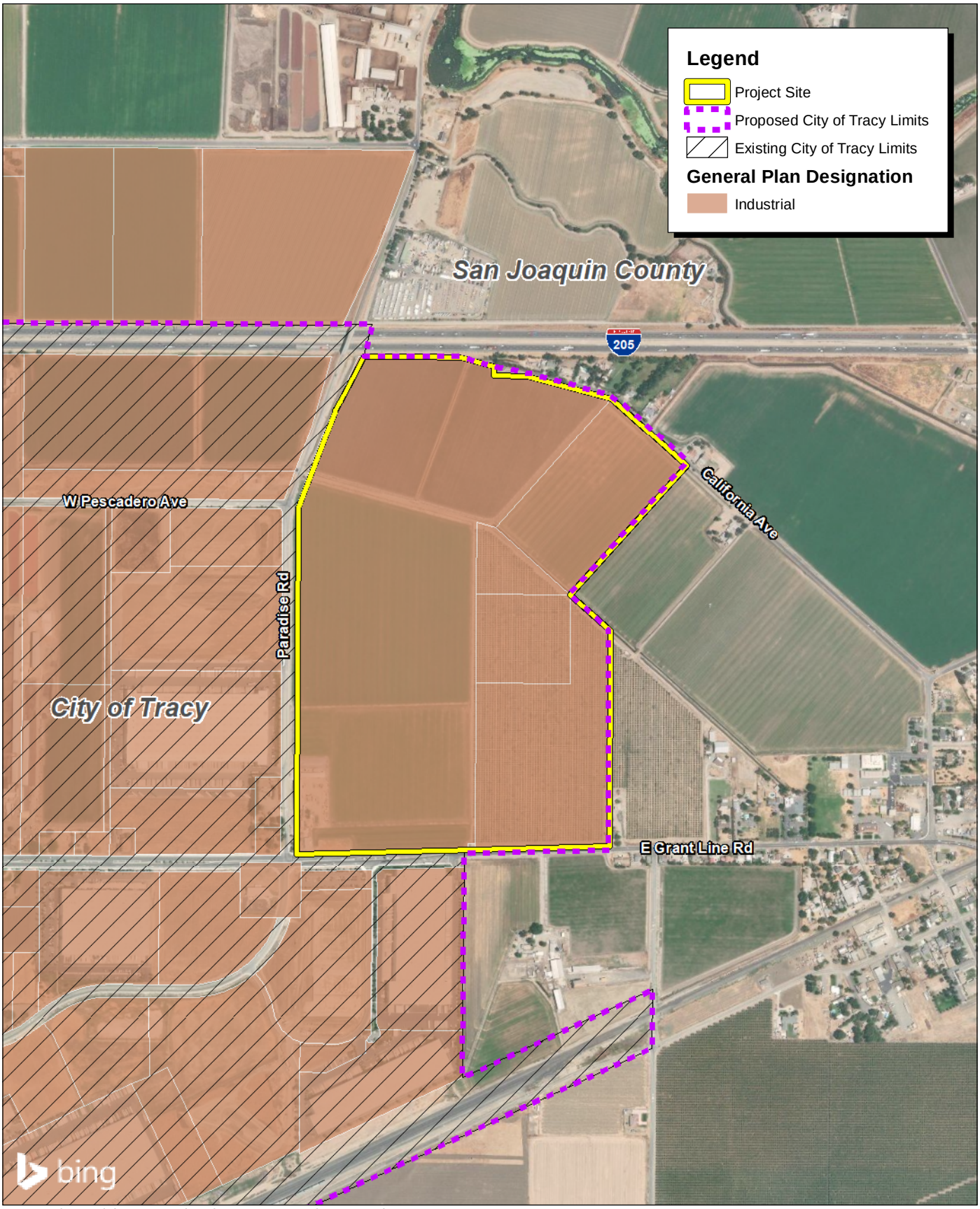


Source: Kimley-Horn, August 2020.

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Exhibit 2-7c
Conceptual Plan for Future I-205/ Paradise Road/Chrisman Road Interchange

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Source: Bing Aerial Imagery. City of Tracy. County of San Joaquin.

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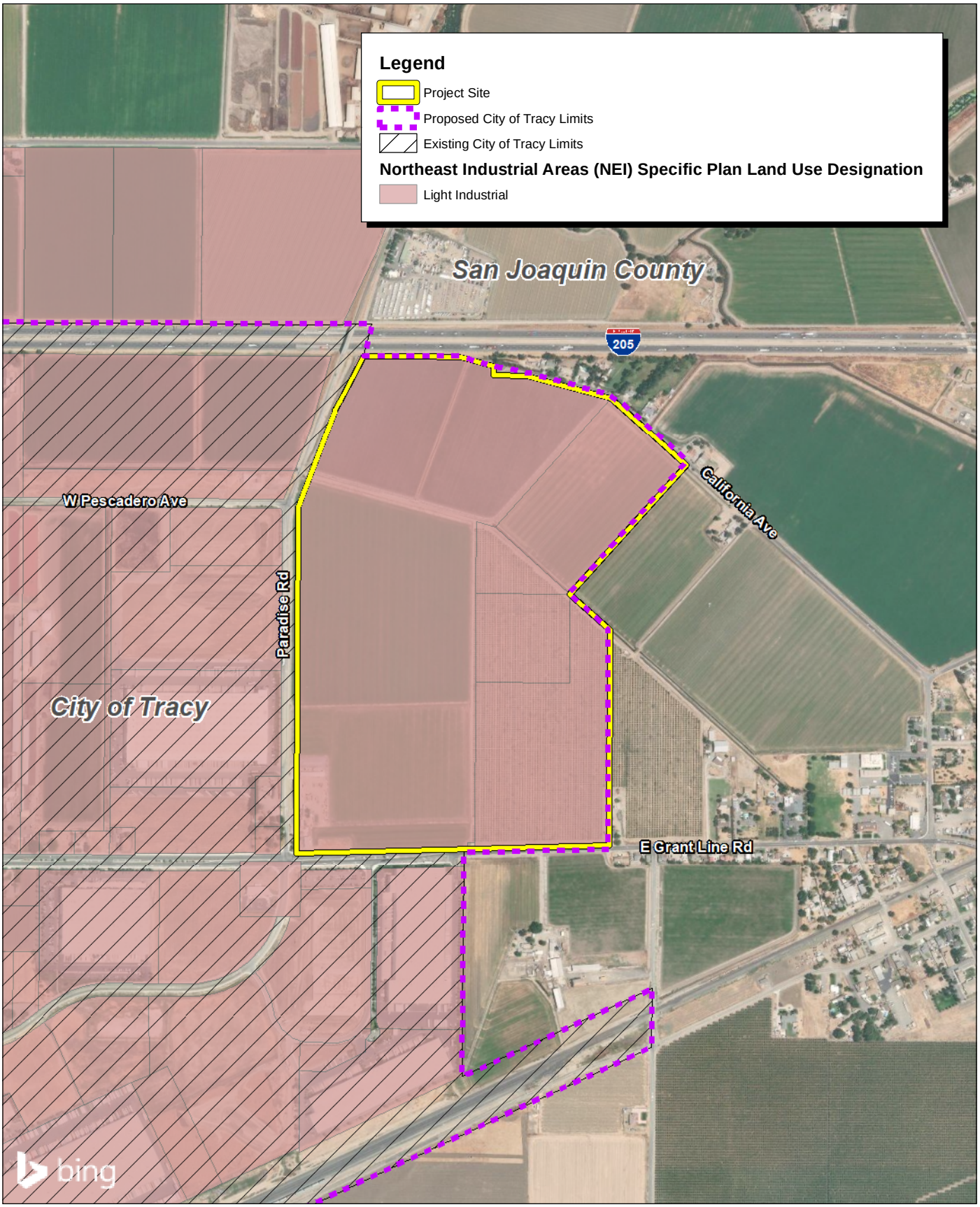
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Exhibit 2-8a
Proposed Annexation

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CITY OF TRACY
TRACY ALLIANCE PROJECT
ENVIRONMENTAL IMPACT REPORT

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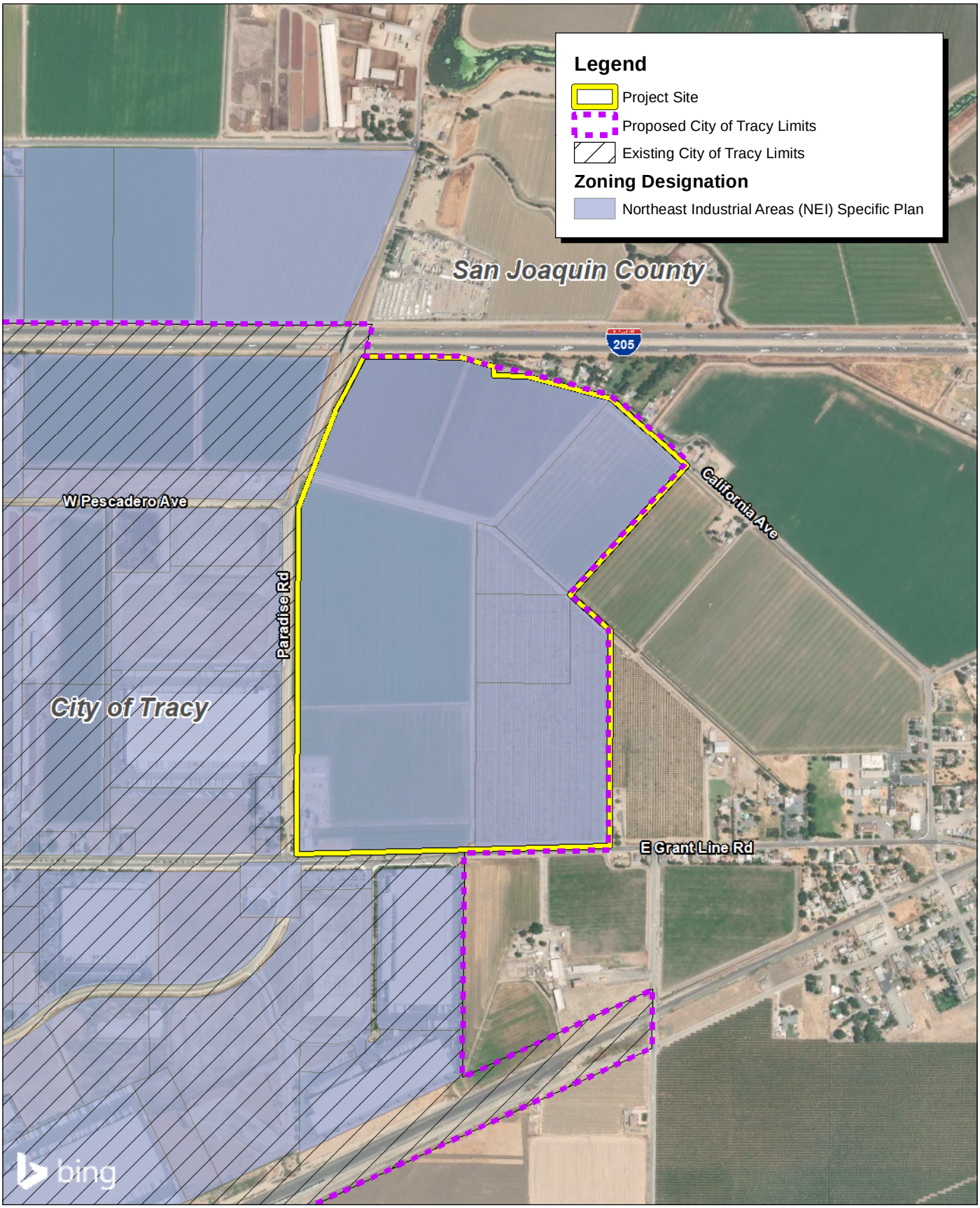
Source: Bing Aerial Imagery. City of Tracy. County of San Joaquin.

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Exhibit 2-8b
Proposed NEI Specific Plan Land Use Designation

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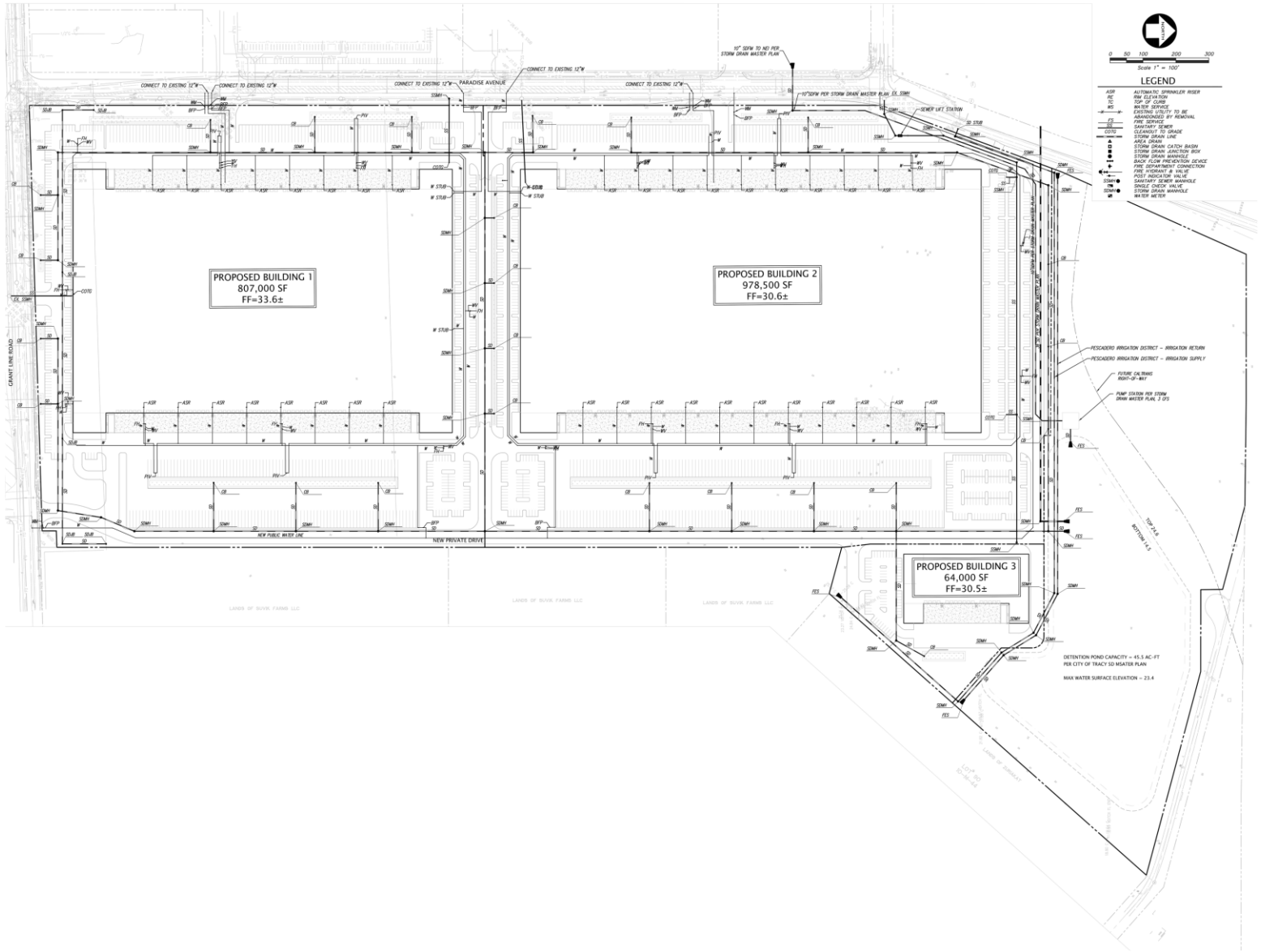
Source: Bing Aerial Imagery. City of Tracy. County of San Joaquin.

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Exhibit 2-8c
Proposed City of Tracy Zoning Designation

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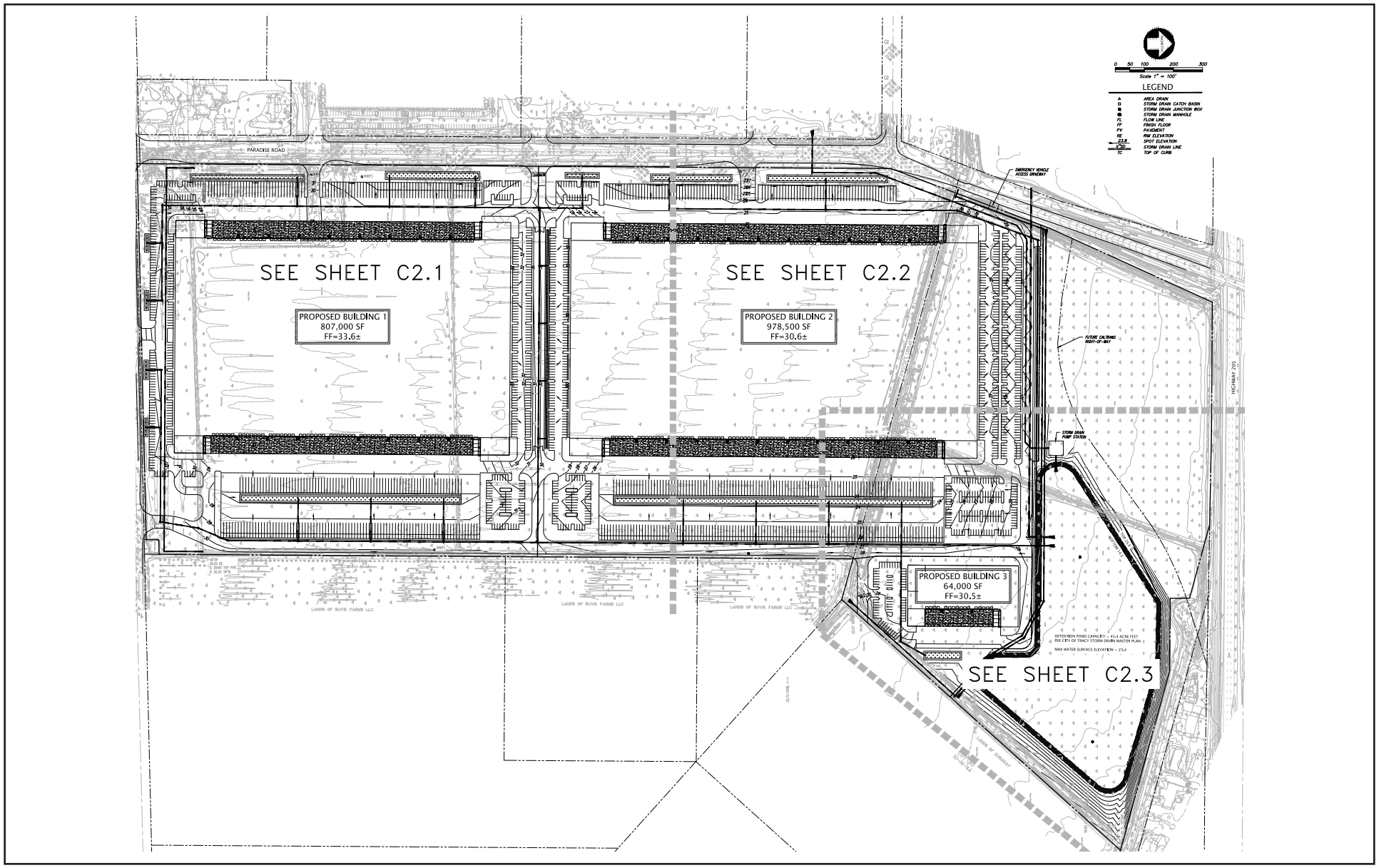


Source: Kier & Wright Civil Engineers & Surveyors Inc., February 2021.

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Exhibit 2-9
Tracy Alliance Parcels - Preliminary Utility Plan

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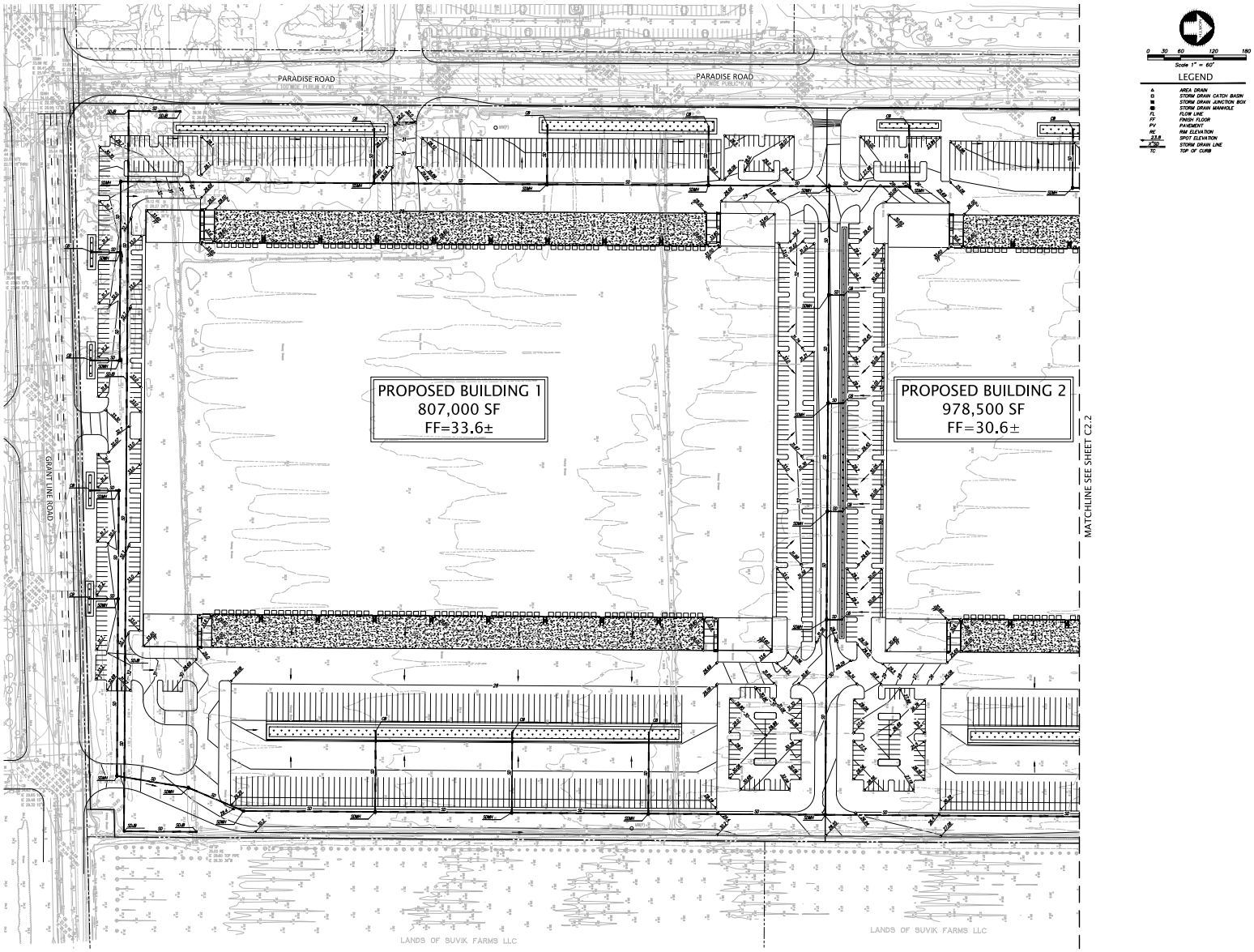


Source: Kier + Wright, February 2021.

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Exhibit 2-10a (Part 1 of 4)
Tracy Alliance Parcels - Preliminary Grading and Drainage Plan

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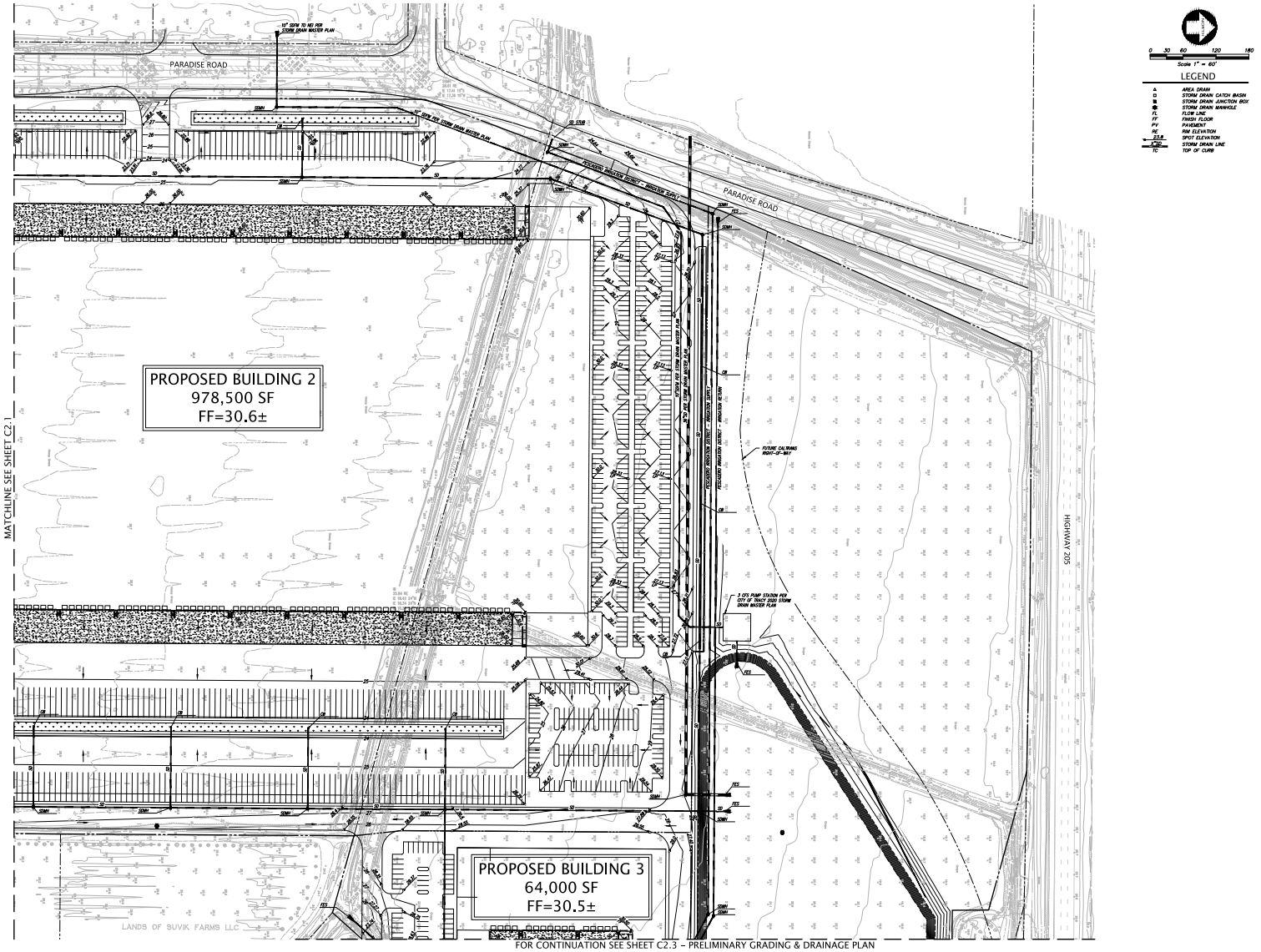


Source: Kier + Wright, February 2021.

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Exhibit 2-10a (Part 2 of 4)
Tracy Alliance Parcels - Preliminary Grading and Drainage Plan

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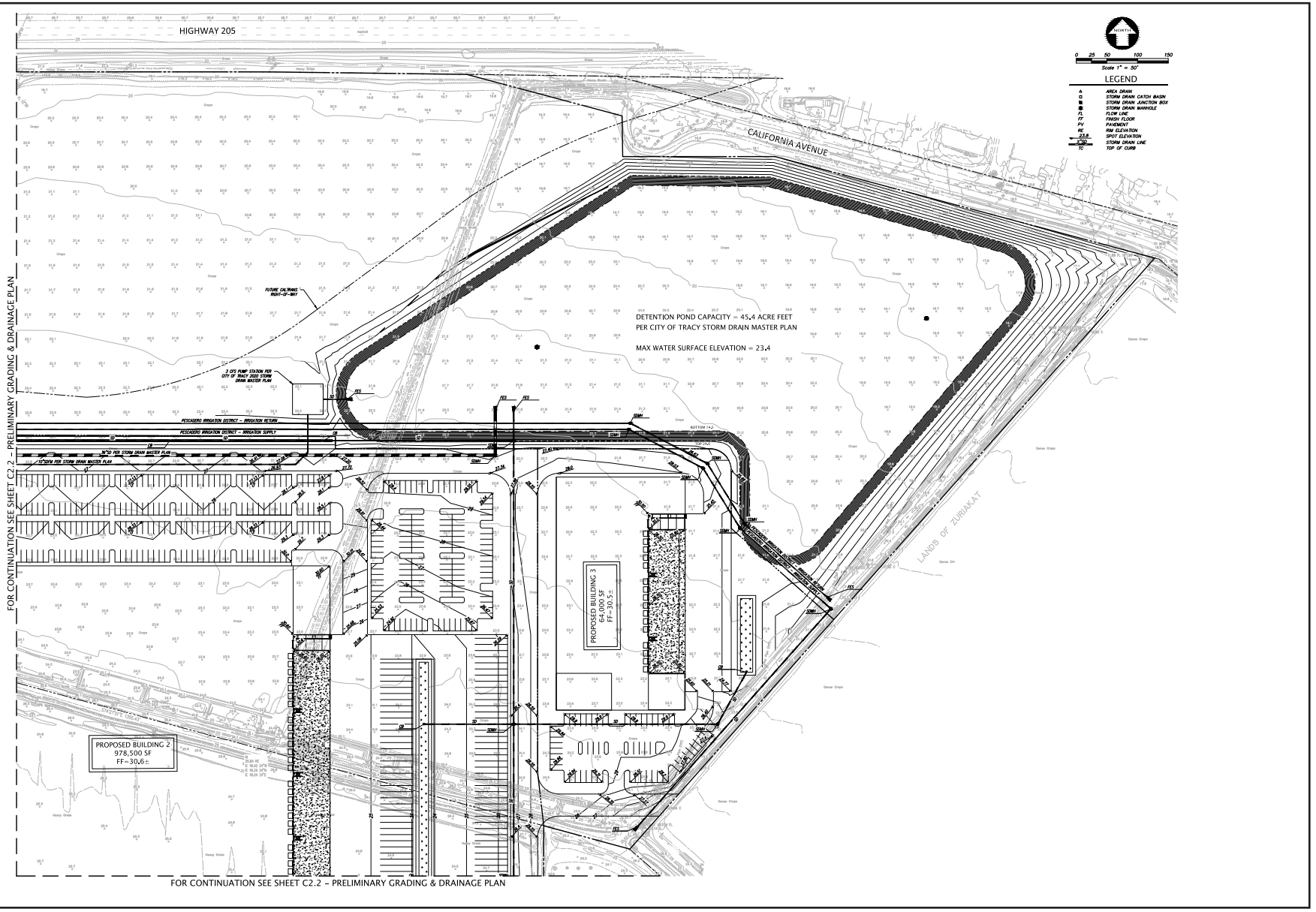


Source: Kier + Wright, February 2021.

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Exhibit 2-10a (Part 3 of 4)
Tracy Alliance Parcels - Preliminary Grading and Drainage Plan

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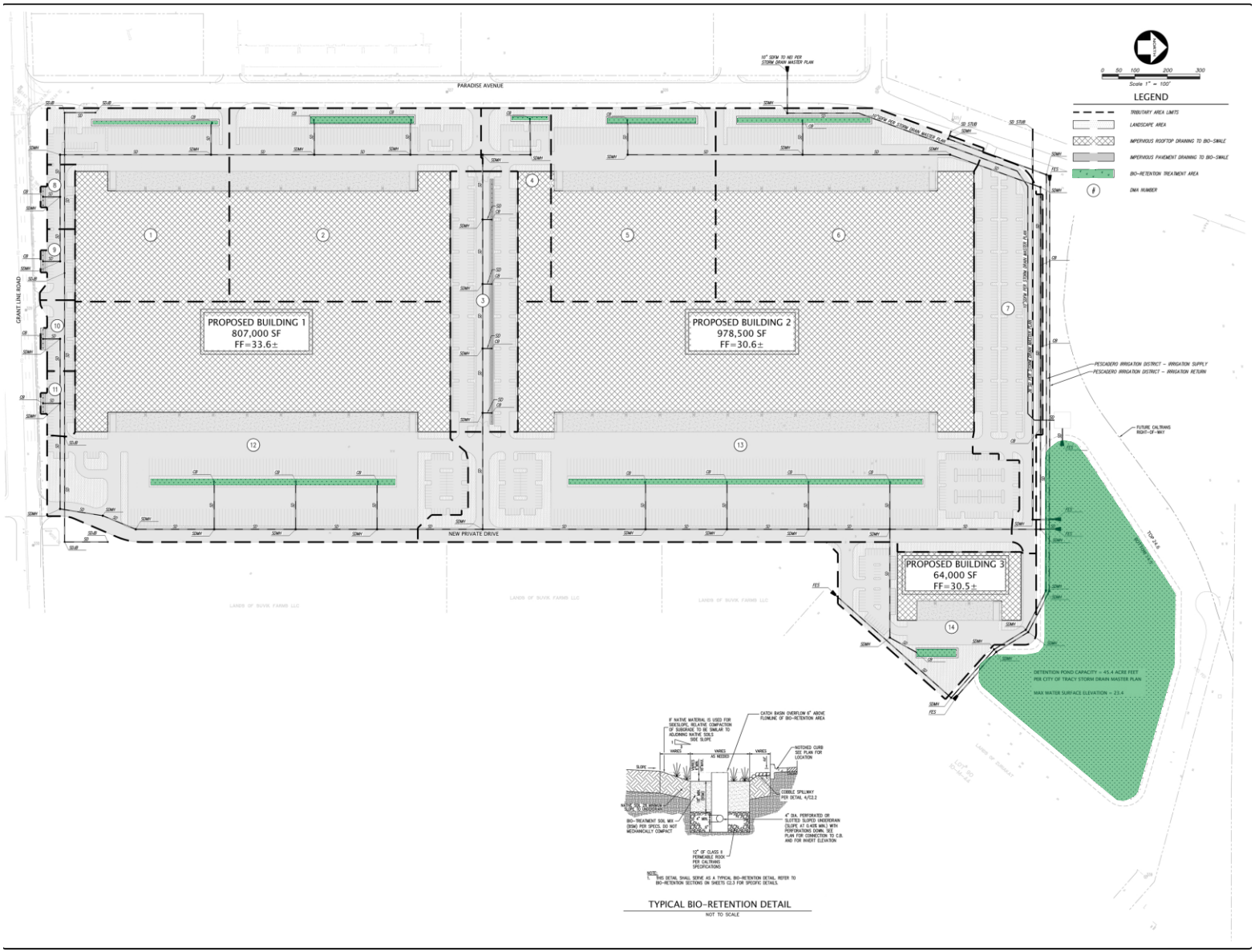


Source: Kier + Wright, February 2021.

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Exhibit 2-10a (Part 4 of 4)
Tracy Alliance Parcels - Preliminary Grading and Drainage Plan

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Source: Kier + Wright, February 2021.

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Exhibit 2-10b
Tracy Alliance Parcels - Preliminary Storm Water Control Plan

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CHAPTER 3: ENVIRONMENTAL IMPACT ANALYSIS

This Chapter sets forth the physical and regulatory environmental setting and addresses the organization of the discussion of the environmental impacts of the Tracy Alliance Project (proposed project) with respect to 17 environmental resource areas. The discussions of the environmental setting describe present physical conditions, or baseline conditions, on the project site and in the vicinity. For purposes of this analysis, the baseline used for the evaluation of environmental impacts under the California Environmental Quality Act (CEQA) reflects the conditions present at the time the Notice of Preparation (NOP) for this Draft Environmental Impact Report (Draft EIR) was published. To determine the proposed project's individual impacts, potential impacts of the proposed project are compared against the existing baseline conditions for each environmental resource. For purposes of the cumulative analysis, the impacts of the proposed project in combination with other past, present, and reasonably foreseeable future projects are analyzed to determine whether overall long-term impacts of all such projects would be cumulatively significant, and to determine whether the proposed project itself would cause a "cumulatively considerable" incremental contribution to any such cumulatively significant impacts.

Environmental Topics Addressed in this Draft EIR

The project is analyzed in this EIR from the perspective of the following 17 environmental resource areas:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Public Services
- Transportation
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire

Format of the Environmental Analysis

Each resource area analyzed in this Draft EIR includes the subsections summarized below.

Introduction

This subsection summarizes what is discussed in the respective environmental topic section, states what informational documents are used as the basis for the section, and indicates what related comments, if any, were received during the Draft EIR public scoping period.

Environmental Setting

This subsection describes existing, baseline physical conditions of the project site and the surroundings (e.g., existing land uses, transportation conditions, noise environment) with respect to each resource topic at the time the NOP was issued. Conditions are described in sufficient detail and breadth to allow a general understanding of environmental impacts of the proposed project based on reasonably available information.

Regulatory Framework

This subsection describes relevant federal, State, regional (if applicable), and local regulatory requirements that are directly applicable to the environmental topic being analyzed.

Impacts and Mitigation Measures

This subsection evaluates potential for the proposed project to result in direct and indirect adverse impacts on the existing physical environment, with consideration of both short-term and long-term impacts. The analysis covers construction and operation of the proposed project. The City is utilizing Appendix G of the State CEQA Guidelines as thresholds of significance for this project. The significance thresholds for environmental impacts are defined at the beginning of this subsection, and the discussion of the approach to the analysis explains how significance thresholds have been applied to evaluate impacts of the proposed project.

Indirect impacts are discussed only for those resources for which they have potential to occur (e.g., cultural resources, air quality, and biological resources). Both individual-level and cumulative impacts are analyzed. Individual-level impacts could result from actions related to implementation of the proposed project as compared to the existing, baseline conditions. Cumulative impacts could result from implementation of the proposed project in combination with other cumulative projects in the relevant study area. As discussed in "Cumulative Impacts," below, the projects listed in Table 3-1, in conjunction with the proposed project, are considered the cumulative scenario for analysis of cumulative impacts.

Impacts are analyzed and the respective assessment and findings are included in this Draft EIR, applying the following levels of significance:

- **No Impact.** A conclusion of No Impact is reached if no potential exists for impacts or if the environmental resource does not occur in the project site or the relevant study area of potential impacts.
- **Less than significant impact.** This determination applies if the impact does not exceed the defined significance criteria or would be eliminated or reduced to a less than significant level through compliance with existing local, State, and federal laws and regulations. No mitigation is required for impacts determined to be less than significant.
- **Less than significant impact with mitigation.** This determination applies if the proposed project would result in a significant impact, exceeding the established significance criteria, but feasible mitigation is available that would reduce the impact to a less than significant level.

- **Significant and unavoidable impact.** This determination applies if the proposed project would result in an adverse impact that exceeds the established significance criteria, and no feasible mitigation is available to reduce the impact to a less than significant level. Therefore, the residual impact would be significant and unavoidable.

Impacts are defined in terms of their context and intensity. Context is related to the uniqueness of a resource; intensity refers to severity of the impact. Where applicable, Best Management Practices (BMPs), project improvement measures (otherwise referred to as project design features), or both, are incorporated into the proposed project to limit potential for a significant impact. Where necessary, feasible mitigation measures are identified for significant impacts to limit the degree or lower the magnitude of the impact; rectify the impact by repairing, rehabilitating, or restoring the affected environment; or compensate for the impact by replacing or providing substitute resources or environments. These impacts conclude with a finding of *Less than significant impact with mitigation*. Where no mitigation measures are necessary, relevant impacts are concluded to be *Less than significant* or to have **No impact.**

As part of the impact analysis, mitigation measures are identified, where feasible, for impacts considered significant or potentially significant consistent with CEQA Guidelines Section 15126.4, which states that an EIR "shall describe feasible measures which could minimize significant adverse impacts." CEQA requires that mitigation measures have an essential nexus and be roughly proportional to the significant impact identified in the EIR. The project sponsor may be required to implement all identified mitigation measures identified in this Draft EIR, as reflected in an adopted Mitigation Monitoring and Reporting Program (MMRP) and the lead agency (in this case, the City of Tracy) is responsible for overseeing the project sponsor's implementation of mitigation measures, which occurs through the imposition of the MMRP as enforceable conditions of approval. Pursuant to CEQA Guidelines Section 15126.4, mitigation measures are not required for environmental impacts that are found not to be significant.

Impacts are numbered and shown in bold type. The corresponding mitigation measures, where identified, are numbered, indented, and follow the impact statements. Impacts and mitigation measures are numbered consecutively within each topic and include an abbreviated reference to the impact section (e.g., "LAND" for Land Use and Planning). The following abbreviations are used for individual topics:

- Aesthetics (AES)
- Agriculture and Forestry Resources (AG)
- Air Quality (AIR)
- Biological Resources (BIO)
- Cultural Resources (CUL)
- Energy (ENER)
- Geology and Soils (GEO)
- Greenhouse Gas Emissions (GHG)
- Hazards and Hazardous Materials (HAZ)
- Hydrology and Water Quality (HYD)

- Land Use and Planning (LAND)
- Noise (NOI)
- Public Services (PUB)
- Transportation (TRANS)
- Utilities and Service Systems (UTIL)
- Tribal Cultural Resources (TCR)
- Wildfire (WILD)

Cumulative Impacts

The discussion of cumulative impacts in this subsection analyzes cumulative impacts of the proposed project, taken together with other past, present, and reasonably foreseeable future projects producing related impacts. The goal of this analysis is to determine whether overall long-term impacts of all such projects would be cumulatively significant, and to determine whether the proposed project itself would cause a "cumulatively considerable" incremental contribution to any such cumulatively significant impacts. To determine whether the overall long-term impacts of all such projects would be cumulatively significant, the analysis generally considers the following:

- The area in which impacts of the proposed project would be experienced;
- The impacts of the proposed project that are expected in the area;
- Other past, proposed, and reasonably foreseeable projects that have had or are expected to have impacts in the same area;
- The impacts or expected impacts of these other projects; and
- The overall impact that can be expected if the individual impacts from each project are allowed to accumulate.

"Cumulative impacts" refers to two or more individual impacts that, when considered together, are considerable, or that compound or increase other environmental impacts (CEQA Guidelines § 15355). Cumulative impacts can result from individually minor but collectively significant impacts taking place over time (40 Code of Federal Regulations [CFR] § 1508.7). This analysis will determine whether the potential exists for the proposed project, taken together with other past, present, and reasonably foreseeable future projects, would result in a significant or adverse cumulative impact. This analysis would then determine whether the proposed project's incremental contribution to any significant cumulative impact is itself significant (i.e., "cumulatively considerable"). Both conditions must apply for the project's cumulative effects to rise to the level of significance.

The cumulative impact analysis for each individual resource topic is presented in each resource section of this Chapter immediately after the description of direct project impacts and identified mitigation measures.

In addition to relevant past and present cumulative projects, Table 3-1 lists relevant cumulative projects considered for the environmental analysis and Exhibit 3-1, Cumulative Projects Map, shows

the locations of the cumulative projects. The cumulative projects list includes past, present, and future projects. Future projects include pipeline projects that are considered reasonably foreseeable.

Table 3-1: Cumulative Projects

No.	Project	Characteristics	Project Development			
			Units	Square Footage	Location	Status
City of Tracy						
1	Home2 Suites Hotel	Highway Commercial Hotel	94	67,230	2025 West Grant Line Road	Operational
2	Shamrock Business Center	Light Industrial	–	67,058	3508 Shamrock Way	Approved and Under Construction
3	Byron Apartments	Medium Density Residential	60	217,800	2660 Byron Road	Approved and Under Construction
4	Berg Road Project	Medium Density Cluster Residential	71	435,600	2774, 2850, 12920 West Byron Road	Approved and Under Construction
5	Brookview	Single-family Dwellings	80	436,036	Brookview Drive and Perennial Place	Approved and Under Construction
6	Brookview West	Low Density Residential	23	243,936	4005 South Tracy Boulevard	Approved and Under Construction
7	Primrose/ Kagehiro Phase III	Single-family Dwellings	252	2,047,000	Southeast corner of Corral Hollow Road and Kagehiro Drive	Approved and Under Construction
8	Tracy Harvest	Residential Subdivision	304	871,200	Henley Parkway	Approved and Under Construction
9	Katerra Apartments	High Density Residential	264	506,167	501 East Valpico Road	Approved and Under Construction
10	Home Depot Distribution Truck Parking Lot	Northeast Industrial–Light Industrial	–	804,118	Pescadero Avenue east of MacArthur Drive	Approved
11	Majestic Tracy Distribution Center	Northeast Industrial–Light Industrial	–	1,172,142	1500 East Grant Line Road	Approved
12	Central Plastics Industrial Building	Northeast Industrial–Light Industrial	–	60,456	1480 Pescadero Avenue	Approved
13	NEI Building 4	Northeast Industrial–Light Industrial	–	606,343	1269 East Grant Line Road	Approved
14	Desalination Plant	Light Industrial	–	10,320,000	9251 West Arbor Avenue	Approved

No.	Project	Characteristics	Project Development			
			Units	Square Footage	Location	Status
15	Schack and Company Warehouse with Office	Northeast Industrial–Light Industrial	–	90,000	1850 North Chrisman Road	Approved
16	Starbucks, Burger King, Gasoline Station and Store, Car Wash	General Highway Commercial	–	5,584	630 East 11th Street	Approved
17	Tracy Assisted Living and Memory Care	Dependent Living Facility	100	87,107	South of Grant Line Road, west of Corral Hollow Road	Approved
18	Marriott Hotel	Commercial Hotel	107	58,800	3550 North MacArthur Drive	Approved
19	NEI Building 17/ Katerra Phase II	Northeast Industrial–Light Industrial	–	175,200	2302 East Paradise Road	Approved
20	GH Logistics Phase II	Light Industrial	–	6,000	1428 Mariani Court	Approved
21	California Highway Patrol (CHP) Facility	CHP Headquarters	–	28,162	1175 East Pescadero Avenue	Approved
22	Southgate High Density Development	High Density Residential	42	149,411	2483 West Schulte Road	Approved
23	Tracy Village and Annexation	High Density Residential	581	5,663,000	Southeast corner of Valpico Road and Corral Hollow Road	Approved
24	Project Big Bird	Industrial	–	823,500	South of Grant Line Road, east of Skylark Way, and west of Chrisman Road	Approved
25	MacArthur Drive Extension	Traffic Congestion Relief	–	–	From Mount Diablo Avenue to Eleventh Street	Planned
26	Schulte Road Extension	Traffic Congestion Relief	–	–	From Corral Hollow Road to Lammers Road	Planned
27	Chrisman Road Extension	Traffic Congestion Relief	–	–	From Grant Line Road to Interstate 205	Planned

No.	Project	Characteristics	Project Development			
			Units	Square Footage	Location	Status
28	Chrisman Road/Union Pacific Railroad Crossing	Railroad Crossing Safety	–	–	Between North and South Chrisman Road across Union Pacific Railroad	Planned
County of San Joaquin						
29	Linne Road Widening	Traffic Congestion Relief	–	–	From Tracy Boulevard to Chrisman Road (south of Tracy city limit)	Planned
30	County Expressway from Tracy to River Islands/ Lathrop	Traffic Congestion Relief	–	–	From Arbor Avenue north of Tracy city limit to River Islands/ Lathrop	Planned
California Department of Transportation						
31	I-205 Tracy HOV 8 Lane Widening	Traffic Congestion Relief	–	–	From Alameda County Line to Interstate 5 (through northern City of Tracy and surrounding San Joaquin County lands)	Planned
32	I-205/Lammers Road/Eleventh Street Interchange Project	Traffic Congestion Relief	–	–	Junction of Interstate 205 and Lammers Road (within City adjacent to western city limit)	Planned
33	I-205/MacArthur Drive Interchange Improvements	Traffic Congestion Relief	–	–	Existing Interstate 205/MacArthur Drive Interchange (within City)	Planned
34	I-5 Widening	Traffic Congestion Relief	–	–	From State Route 120 to Interstate 205 (within City of Lathrop)	Planned
35	I-205/Chrisman Road Interchange	Traffic Congestion Relief	–	–	Junction of Interstate 205 and Paradise Road (on project site)	Planned
Sources:						

No.	Project	Characteristics	Project Development			
			Units	Square Footage	Location	Status

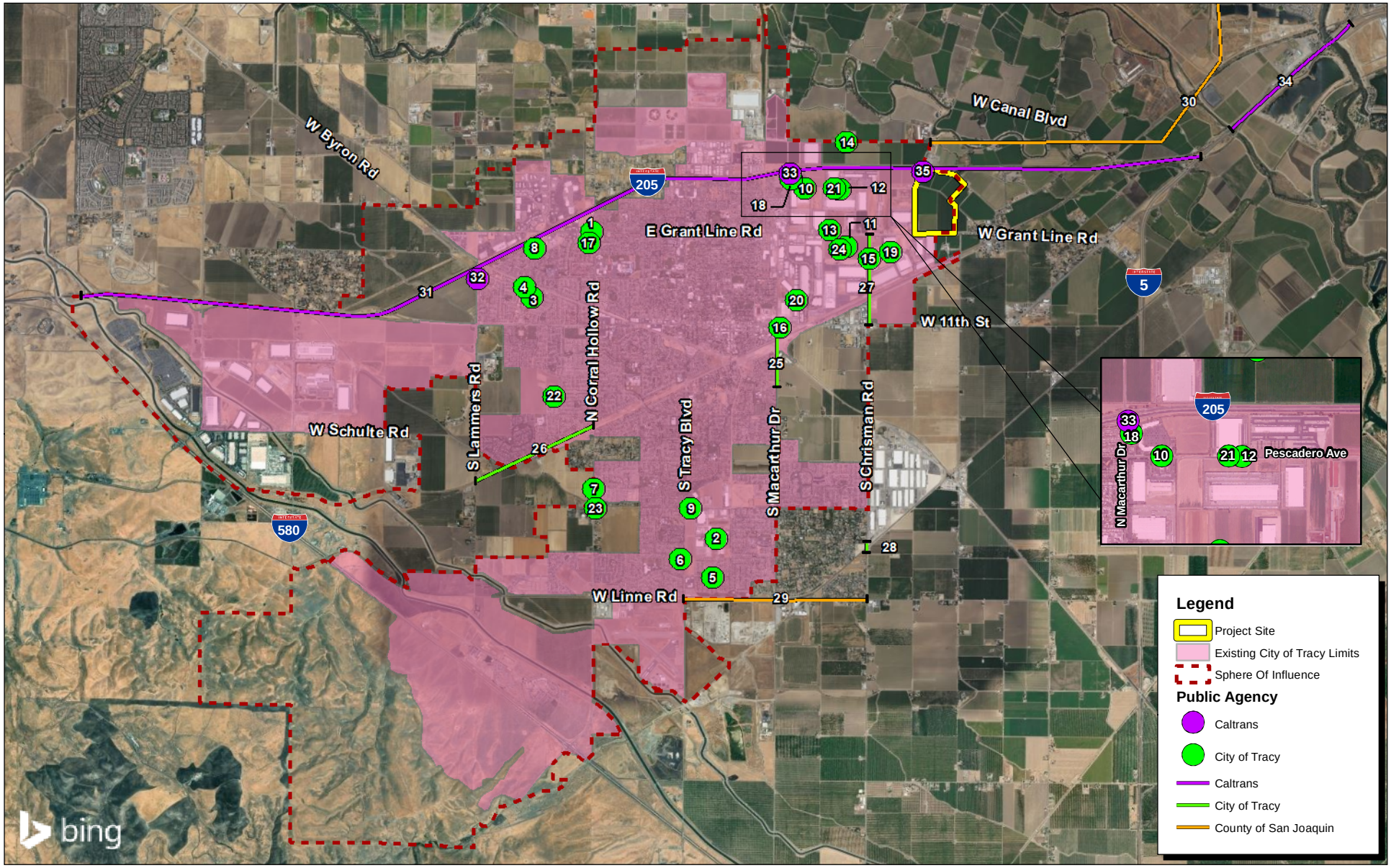
City of Tracy. 2020. City of Tracy New Construction: Industrial & Commercial Development Pipeline Report. May.

City of Tracy. 2020. City of Tracy Residential Development Pipeline Report. May.

RBF Consulting. 2012. Citywide Roadway & Transportation Master Plan. November.

San Joaquin Council of Governments. Interactive Project Map. Website: https://www.sjcog.org/396/Interactive-Map. Accessed May 5, 2020.

California Department of Transportation (Caltrans). 2020. District 10 Current Projects. Website: https://dot.ca.gov/caltrans-near-me/district-10/district-10-current-projects. Accessed May 5, 2020.



Source: Bing Aerial Imagery.

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Exhibit 3-1
Cumulative Projects Map

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3.1 - Aesthetics

3.1.1 - Introduction

This section describes the existing aesthetics, light, and glare setting and potential environmental effects from project implementation on visual resources on the site and its surroundings. Descriptions and analyses in this section are based, in part, on on-site reconnaissance and a photo inventory by FirstCarbon Solutions (FCS) personnel and review of the City of Tracy General Plan (General Plan), City of Tracy Municipal Code (Tracy Municipal Code), and the City of Tracy Northeast Industrial (NEI) Specific Plan.

3.1.2 - Environmental Setting

Visual Character

Visual character in the California Environmental Quality Act (CEQA) context is an impartial description of defining physical features, landscape patterns, and distinctive physical qualities within a landscape. Visual character is informed by the composition of land, vegetation, water, and structures and their relationship (or dominance) to one another, and by prominent elements of form, line, color, and texture that combine to define the composition of views. Visual character-defining resources and features within a landscape may derive from notable landforms, vegetation, land uses, building design and façade treatments, transportation facilities, overhead utility structures and lighting, historic structures or districts, or panoramic open space.

City of Tracy

The City of Tracy (City) is located in San Joaquin County, east of the Coastal Range that separates California's Central Valley from the San Francisco Bay Area. The City lies east of the Mount Diablo Meridian and covers approximately 22 square miles. It is surrounded generally by agricultural, industrial, and rural and suburban residential uses.

The City is in the San Joaquin Valley, between the Sierra Nevada Mountains to the east and the Diablo Range to the west. Substantial portions of the valley floor are developed with residential, agricultural, and industrial facilities. Its visual urban form consists of several distinct segments, including Tracy's downtown, traditional residential neighborhoods, contemporary residential subdivisions, retail and commercial areas, industrial areas, parks and landscaping, and agricultural lands.

Project Site

The project site is generally flat and is currently comprised of cultivated fields, with associated irrigation/drainage channels. A portion of the project site is currently occupied by several existing residences and agricultural structures, all of which are located in the southwest corner of the site. Ruderal vegetation and ornamental trees associated with the existing structures are present. Several private dirt roads bisect the site providing access to the crop fields. Irrigation/drainage channels run along all of the private dirt roads within the project site (see Exhibit 3.1-1 in Section 3, Biological Resources).

Scenic Resources

Scenic resources typically involve prominent, unique, and identifiable natural features in the environment (e.g., trees, rock outcroppings, islands, ridgelines, channels of water, and aesthetically appealing open space), and/or cultural features or resources, such as regional or architecturally distinctive buildings or structures that serve as a focal point of interest.

City of Tracy

The City of Tracy General Plan identifies the following scenic resources within the Tracy Planning Area:

- **Views of the Diablo Range**. Rising from the southwest portion of the Tracy Planning Area, this range extends from near sea level to 1,652 feet and provides a visual barrier between the Central Valley and the San Francisco Bay Area. Generally, the eastern slopes visible from Tracy have not been developed and contain sporadic tree groupings.
- **Natural landscapes surrounding the Paradise Cut, Old River, and Tom Paine Sloughs**. Located on the north side of the Tracy Planning Area, these landscapes contain streamside vegetation that provide visual contrasts as they run through the relatively flat agricultural lands.
- **Expansive Agricultural Lands**. The surrounding Sphere of Influence (SOI) and Planning Area contain agricultural lands that are used for row crops and grazing.
- **Hillside Areas**. Hillside areas, located on the southwestern side of the City to the west of Interstate 580 (I-580), including in the Tracy Hills Specific Plan area, are a visual amenity for residents of the City and travelers on I-580.

There are two officially designated California Scenic Highway segments in the Tracy Planning Area, covering approximately 16 miles. The first segment is the portion of I-580 between I-205 and I-5, which offers views of the Coast Range to the west and the Central Valley's urban and agricultural lands to the east. The second segment is the portion of I-5 that starts at I-205 and continues south to Stanislaus County, which allows for views of surrounding agricultural lands, the Delta-Mendota Canal, and the California Aqueduct.[1] These segments are shown in Exhibit 3.1-1.

A visual landmark or entryway, as defined by the General Plan, is an element by which people orient themselves and can help create a unique identity for an area. Examples of visual landmarks include statues, major works of public art, historic buildings, water towers, significant landscaping or landforms, and other easily identifiable features.

The City of Tracy provides entrances to the City from major roadways called "entry corridors" or "gateways." These scenic corridors are important for providing both visitors and residents with initial impressions of Tracy and also providing a transition from a rural to urban environment. The City's existing gateways include exits from I-205 at MacArthur Drive, Tracy Boulevard, Grant Line Road and Eleventh Street, and also include exits from I-580 at Lammers Road and Corral Hollow Road. The entry corridors are shown on Exhibit 3.1-1.

[1] California Department of Transportation (Caltrans). 2019. California State Scenic Highway. List of Eligible and Officially Designated State Scenic Highways. August.

Project Site

The project site is adjacent to the current boundaries of the NEI Specific Plan area, which is primarily characterized by light industrial uses such as warehouse and logistic facilities, as well as agricultural uses. Hillside areas and views of Diablo Range are visible from the project site and the project site contains expansive agricultural lands. There are no City entry corridors or gateways, or State Scenic Highways on, or adjacent to, the project site; however, views of the project site are visible from one of the entry corridors identified in the General Plan, the eastbound exit from I-205 off MacArthur Drive. The nearest designated California Scenic Highway is the portion of I-580 between I-205 and I-5, which is approximately 7.2 miles east of the project site.

Views

Views may be generally described as panoramic views of a large geographic area for which the field of view can be wide and extend into the distance. Associated vantage points provide an orientation from publicly accessible locations. Examples of distinctive views include urban skylines, valleys, mountain ranges, or large bodies of water.

City of Tracy

The Diablo Range, rising to an elevation of nearly 1,652 feet, is the most prominent topographical feature in the area.

Project Site

In April 2020, FCS conducted a field visit to observe and document existing visual quality and character of the project site and vicinity. As shown in Exhibits 2-4a through 2-4e in Chapter 2, Project Description, the area surrounding the project site has both an agricultural and industrial character, with neighboring properties south and west of the project site consisting of agricultural lands and industrial warehouses. Land uses north of California Avenue consist of single-family homes and a cell tower located immediately east of the terminus of California Avenue. In addition, urban development such as a vehicle dealership is located to the north, across I-205. East of the project site is agricultural land with associated single-family homes and agricultural structures and outbuildings. To the west are vacant lots interspersed among the agricultural and industrial lands. Views from the project site north are of single-family homes and I-205; views to the west are of industrial buildings and undeveloped land; views to the south are of industrial buildings, single-family homes, and open space; and view to the east are single-family homes and undeveloped land.

Light and Glare

In the context of CEQA, light is nighttime illumination that stimulates sight and makes things visible; glare may be defined as difficulty seeing in the presence of bright light, such as direct or reflected sunlight.

Project Vicinity

The primary sources of nighttime light in the surrounding area are from vehicle headlights traveling along I-205 and Grant Line Road, as well as other surrounding roadways. There are also streetlights and buildings with outdoor security lighting in the project vicinity. There are some large reflective surfaces associated with buildings in the project vicinity that contribute daytime glare.

Project Site

The few residences and agricultural structures on-site may include exterior nighttime lighting; however, such lighting is minimal. There are streetlights surrounding the project site on Grant Line Road and Paradise Road. There are also lights on I-205. There are some outdoor lighting fixtures on adjacent industrial buildings. No other features on the project site produce light or glare.

3.1.3 - Regulatory Framework

State

California Scenic Highway Program

The California Scenic Highway Program is intended to preserve and protect scenic highway corridors from change that would diminish aesthetic value of highway lands. A highway may be designated scenic depending upon how much of the natural landscape can be seen by travelers, scenic quality of the landscape, and the extent to which development intrudes upon travelers' enjoyment of the view. A scenic corridor is land generally adjacent to and visible from the highway and is identified using a motorist's line of vision. The corridor protection program seeks to encourage quality development that does not degrade scenic value of corridors. Minimum requirements for scenic corridor protection include:

- Regulation of land use and density of development
- Detailed land and site planning
- Control of outdoor advertising (including a ban on billboards)
- Careful attention to and control of earthmoving and landscaping
- Careful attention to design and appearance of structures and equipment

Title 24 of the California Code of Regulations Building Energy Efficiency Standards

California Building Code (California Code of Regulations [CCR], Title 24)—including Title 24, Part 6—includes Section 132 of the Building Energy Efficiency Standards, which regulates lighting characteristics, such as maximum power and brightness, shielding, and sensor controls to turn lighting on and off. Different lighting standards are set by classifying areas by lighting zone. The classification is based on population figures of the 2000 Census. Areas can be designated as LZ1 (dark), LZ2 (rural), or LZ3 (urban). Lighting requirements for dark and rural areas are stricter, to protect the areas from the introduction of new sources of light pollution and light trespass.

Local

City of Tracy General Plan

The Tracy General Plan establishes the following goals and policies related to aesthetics, light, and glare that are relevant to this analysis:

Land Use Element

Goal LU-1. A balanced and orderly pattern of growth in the City.

Objective LU-1.1. Establish a clearly defined urban form and city structure.

Policies

Policy P1 New development and redevelopment in existing areas shall be organized as a series of residential neighborhoods, Employment Areas, Corridors, Village Centers, the Downtown and the I-205 Regional Commercial Area. Each is defined as follows:

- Neighborhoods are residential areas of the city that are approximately ½ mile in diameter and centered on a focal point such as a park, school, or public open space.
- Employment areas are the job-centers of the city and include office districts, retail centers and industrial areas.
- The Downtown provides a focal point of community life in the City and contains a mix of uses including commercial, residential, public facilities and community services.
- Village Centers are retail areas that may contain a mix of uses, such as housing and office uses. These areas serve several neighborhoods and are designed to be walkable, main streets.
- Corridors refer to several arterial streets, each with a mix of uses.
- The I-205 Regional Commercial Area is a special district north of I-205 that contains big-box retail, automobile sales establishments and a large, regional shopping mall.

Community Character Element

Goal CC-1. Superior design quality through Tracy.

Objective CC-1.1. Preserve and enhance Tracy's unique character and "hometown feel" through high-quality urban design.

Policies

CC-1.1 P1 Preserving and enhancing hometown feel shall be the overriding design principle for the City of Tracy.

CC-1.1 P3 All new development and redevelopment shall adhere to the basic principles of high-quality urban design, architecture and landscape architecture including, but not limited to, human-scale design, pedestrian-orientation, interconnectivity of street layout, siting buildings to hold corners, entryways, focal points, and landmarks.

CC-1.1 P4 To the extent possible, site layout and building design should take into account Tracy's warm, dry climate, such as through the inclusion of trees and landscaping or other architectural elements to provide shade.

CC-1.1 P5 Lighting on private and public property should be designed to provide safe and adequate lighting, while minimizing light spillage to adjacent properties.

Objective CC-1.2: Balance the need for growth with the preservation of Tracy's "hometown feel."

Policies

CC-1.2 P1 New development projects shall be approved only if they meet the design principles set forth in the Community Character Element and in detailed design guidelines approved by the City Council.

Objective CC-1.4. Minimize the use of sound walls in Tracy.

Policies

CC-1.4 P3 Sound walls or solid fences along streets other than arterials and expressways should be used only if no other design solutions exist for reduction the impact of roadway noise on residential areas.

CC-1.4 P4 Where sound walls are used, they shall be set back from the street, include design features that enhance visual interest and be landscaped in order to mitigate their impact on urban character and the pedestrian environment.

Objective CC-1.5. Provide underground utilities throughout Tracy.

Policies

CC-1.5 P1 New development shall allocate and construct utilities underground.

Goal CC-4. An enhanced identity through preservation of open space at the City's periphery and appropriate transitions between urban development and non-urban areas.

Objective CC-4.1: Create appropriate edges to the urbanized area.

Policies

CC-4 P1 Strongly oppose the urbanization within the City of Tracy's Planning Area as defined by this General Plan or the San Joaquin County General Plan, whichever is more restrictive, particularly between the City of Tracy and the adjacent communities of Mountain House and Lathrop.

CC-4 P2 To the extent feasible, the City shall use land designations and open space preservation techniques to create appropriate transitions. A variety of techniques can be used to create the soft or hard edges to the City including the following:

- **Buffer Zone.** Soft edges can be created with buffer zones such as natural open space, large setbacks, and landscaped areas, as a means to separate urban from rural uses. Buffer areas shall be planted and maintained by the property owner, tenants or homeowner's association and may include passive and active recreation areas such as picnic areas, bridle, and walking trails. Golf course development may also be an option in areas where a soft edge is desired.
- **Cluster Development.** Clustered development is a method of site planning in which structures are clustered on a given site in the interest of preserving open space or creating a buffer. Areas with clustered development typically have low gross

residential densities and high minimum open space requirements to encourage the clustering of structures.

- **Feathering of Density:** A gradual reduction in residential density can be used to establish a smooth transition between urban and rural uses.

CC-4 P3 The City shall encourage the location of new parks around the edge of the SOI to help create and support a soft edge to the city.

Goal CC-11. Well-designed Employment Areas that are integrated with other parts of Tracy.

Objective CC-11.1: Ensure that Employment Areas are developed with a recognizable identity and structure.

Policies

CC-11.1 P1 Employment Areas should contain one or more focal points such as a retail use, park, or plaza.

CC-11.1 P2 Focal Points in Employment Areas may be located on private or public property and are encouraged to be publicly accessible.

CC-11.1 P3 Development within an Employment Area should occur such that a majority of business parks or office parks are within a reasonable walking or biking distance, generally ½ mile, of one or more focal points.

Objective CC-11.2. Encourage attractive design in Employment Areas.

Policies

CC-11.2 P1 Development in Employment Areas should adhere to high-quality design standards.

CC-11.2 P4 Building setbacks for office buildings or office portions of industrial buildings should be minimized to ensure that buildings define the edges of the street.

CC-11.2 P5 Building facades in Employment Areas should provide visual interest.

CC-11.2 P6 Loading facilities in Employment Areas should be screened from view from public streets to the extent possible.

CC-11.2 P7 Individual projects in Employment Areas shall provide adequate buffers to adjacent residential areas.

CC-11.2 P8 Fencing on industrial and commercial sites at the front property line shall be discouraged, except when necessary for security or noise attenuation.

CC-11.2 P9 Fencing visible from the public right-of-way shall be visually appealing when used in industrial and commercial developments.

Objective CC-11.3. Minimize the impact of parking on the pedestrian environment in the Employment Areas.

Policies

CC-11.3 P1 The impact of parking in Employment Areas on the pedestrian environment should be minimized with attractive landscaping.

CC-11.3 P2 Parking lots should be set back from the street with a landscaped buffer wherever possible.

CC-11.3 P3 Parking for alternative modes of transportation, such as preferential parking for carpool/vanpool, motorcycles or alternative fuel vehicles and bicycles, should be incorporated into parking plans for development projects in Employment Areas.

Northeast Industrial Specific Plan

The NEI Specific Plan establishes design guidelines and development standards for projects within its boundaries. For Light Industrial (LI) uses, this includes a maximum floor area ratio (FAR) of 0.5 and a maximum building height of 60 feet. Other applicable design guidelines are included below.

Streetscapes

- The design of the streetscape should integrate, in a consistent and creative manner, plant materials, paths, berming, lighting, and signage to produce an attractive and functional environment.
- All landscaping should employ a mix of trees, shrubs, groundcovers and turf, where appropriate. The plant palette should be relatively limited and applied in groupings of similar species rather than a few plants of many different species planted together. The use of water conserving plantings, such as California natives and drought tolerant trees, shrubs, and turf is encouraged, and compliance with the state's water efficient landscape guidelines is required.
- The use of lawn substitutes is encouraged in all medians and for parkways. The use of turf should be minimized and reserved for areas of high use or visibility and temporary median planting in anticipation of future street widths.
- Automatic irrigation is required for all landscape areas. Plants should be watered and maintained on a regular basis. Irrigation systems should be designed so as not to overspray walks, buildings, and parking areas, etc. The use of water conserving systems, such as drip irrigation for shrub and tree planting, is encouraged.
- Tree plantings should reflect street hierarchy with larger trees along arterial streets and smaller trees on industrial streets. Tree plantings shall be symmetrical and of the same species in the parkways on both sides of the streets. One tree species or mixture of species shall be planted consistently at regular intervals along the entire length of a street. Spacing interval shall be no greater than 40 feet on center. Where trees are planted in medians, the plantings shall be continuous and at regular intervals. Spacing of median trees shall be no greater than 30 feet on center. Different tree species shall be planted at intersections to highlight these areas.
- Adequate sight lines shall be maintained at all times.

Street Lighting

- Illumination standards for arterial and industrial streets should reflect the different right-of-way widths and functions.
- Light fixtures and standards shall meet all safety standards and shall be employed throughout the length of the street. It is recommended that one lighting fixture style be employed for use on all streets. Where possible, light standards shall be located in medians.

Building Setbacks

- Building setback from any property line adjacent to a street or Caltrans right-of-way shall be 25 feet minimum. Rear and side yard building setbacks from property lines not adjacent to a street or Caltrans right-of-way shall be 15 feet minimum.
- A 5-foot-wide landscape setback is required along property lines not adjacent to a right-of-way. On the property lines perpendicular to the street frontage on industrial streets, the landscaped setback is only required to a point 150 feet onto the parcel from the street right-of-way or 50 feet back of building face, whichever is greater.
- Parking setback from any property line along a public street of the Caltrans right-of-way for commercial land uses shall be 10 feet and for industrial land uses shall be 15 feet.
- Parking shall not be permitted within 10 feet of the building entry face of any commercial structure. In the event the building has an arcade or other shade structure along this frontage, the structure can be located within this required setback. Parking shall not be permitted within 15 feet of the office face or portion of a building. On industrial buildings, a 15 foot setback to the parking area shall be provided at building entries.

Loading and Unloading Spaces

- Sufficient off-street loading and unloading spaces shall be provided on each site, and adequate provisions and space shall be made for maneuvering freight vehicles and handling all freight. All loading activity, including turnaround and maneuvering, shall be made on-site.
- In industrial areas, truck loading areas and docks shall not be permitted between building(s) and the street unless the building(s) are set back from the curb a minimum of 125 feet and doors are screened by landscaping, berms, and/or fences.
- Buildings, structures, and loading facilities shall be designed and placed upon the site so that vehicles, whether rear or side loading, may be loaded or unloaded at any loading dock, door, or area without extending beyond the property line.

Driveway Standards

Driveways should be carefully located so as not to impede the primary function of the streets, which is to carry through traffic. It should be noted that these spacing guidelines are minimum values. The goal should be to exceed them where possible.

- Individual industrial parcels on major arterial streets may have driveways, but they should be carefully located so as not to impede the traffic efficiency. In general, parcels with frontage on the

major arterials should have their entryway on side streets if possible. If a parcel's only frontage is on the major arterial, every effort should be made to consolidate access at a single driveway. Spacing standards for driveways on major arterials shall be as follows:

a) Full access driveways, 500 ft. minimum
b) Partial access driveways (right in/out, left turn in), 500 ft. minimum
c) Right turn in and out, 350 ft. minimum upstream from an intersection
d) Right turn in and out, 200 ft. minimum downstream from an intersection

- On industrial streets, spacing for full access driveways is 450 feet, minimum. "T" intersections are encouraged over four-way intersections. Every effort should be made to consolidate driveways.
- No driveway shall be located closer than 200 feet to the radius return point at intersections.
- Driveways shall be a minimum of 25 feet wide. Subsequent development shall demonstrate driveway width and placement can accommodate truck turning movement and clearing without blocking roadways.
- Driveway width modifications may be approved with shared (ganged) driveways. Ganged driveways which serve two adjacent sites will be required to install landscaped islands along parking adjacent to the gang driveway and a landscape zone at the end of the common drive will act as a terminus to the view line down the ganged driveway.
- Full curb returns (as opposed to a standard driveway) shall be utilized for entries to all sites of over 10 acres in size or for common driveways that serve two adjacent sites that together total more than 10 acres.
- Access driveways shall provide adequate length to accommodate off-street vehicle stacking needs during times of peak use.
- Parcel entry should be clear, attractive, and inviting; circulation should direct employee and visitor traffic clearly through the site to main building entries and drop-off points and service trucks to loading.

Freeway Interface

The control of views of Tracy from I-205 is critical for the establishment of a quality image for the community.

- Locate services and storage areas to minimize visibility from I-205.
- All freeway setback zones shall be planted with a combination of trees, shrubs, and groundcover. Automatic irrigation is required of all planted area. Use large scale trees, from a 24-inch box minimum, grouped in single species clusters. Mass trees to avoid blocking views of commercial signage while providing at least one tree per 1,500 square feet of setback area. Plant shrubs in an informal hedge near the property line with gaps between hedges of 50 feet maximum. Install from 5-gallon cans, minimum, in single species clusters at least 100 feet long. Hydroseed or otherwise install permanent groundcover in all places not planted with shrubs.

Building Architecture

- Use of creative building design and construction techniques is encouraged. Special attention should be given to that portion of the building visible from adjacent roadways or public parking areas.

- Large buildings should have facades that include variations in massing, form, and texture. Continuous surface treatments of a single material should be minimized. Architecture should be used to highlight building entries.
- Any accessory buildings and enclosures, whether attached or detached from the main building, shall be of similar compatible design and materials.

Signs

- Signs must conform to the requirements of Signs, Title 10, Article 35 of the Tracy Municipal Code as modified herein.
- A site sign program should be integrated into a total design concept for a site and its buildings. The primary goal of the project sign system is to provide information and identification. When more than one sign is permitted, all signs shall be of similar style, shape, and materials.
- All signs must be approved prior to installation, and should be designed in a manner that coordinates the sign designs and locations with the site plan and building architecture for each project. The sign plans should include:

  a) **Detached Business Identification Signs:** One such monument sign (as defined by the Tracy Municipal Code) shall be allowed for each street frontage of the site. These signs may only contain the symbol and/or name of the business and its street address. The sign shall be free standing, may be double-sided, and shall be set back a minimum of 5 feet from the public right-of-way. Sign area shall not exceed 32 square feet per frontage and sign shall not exceed 6 feet in height from finished grade. Signs should generally be oriented perpendicular to approaching traffic.

  b) **Wall signs:** On large single tenant buildings, signs should be located immediately above or adjacent to the primary building entrance. No sign shall extend above dominant roof lines. The area of any single sign shall not exceed 100 square feet. Total area shall not exceed one-half square foot of sign per lineal foot of business being served.

     On smaller multi-tenant buildings, signs should be located at the frontage of each individual lessee. The area of any single sign shall not exceed 100 square feet nor more than 75 percent of the tenant frontage. Capital letters shall be no more than 2.5 feet in height and lower-case letters no more than 1.5 feet in height. When individually lettered wall signs comprise over 50 percent of the sign area of all sign types, total sign area shall not exceed 1.2 square feet per lineal foot of business being served. When comprising less than 50 percent of the total sign area, the maximum sign area shall be one-half square foot per lineal foot of business being served.

c) **Directional Signs:** Signs required or desired to assist patrons in accessing the facility shall be located in the site parking areas. The design of such signs shall be simple and easily legible. There is no limit to the number of signs provided on a site; however, no single sign shall exceed 6 square feet in area, except that vehicular "stop" signs shall be mounted per State standards.

- A sign may be illuminated provided that no flashing, traveling, animated, or intermittent illumination shall be used. Such illumination shall be confined to the area of the sign except when such illumination is back lighting for an otherwise non-illuminated sign. No sign illumination shall cast a glare which is visible from any street.
- Signs should be constructed with quality materials and in a craftsman-like manner to ensure both an attractive appearance and durability.

Landscaping

Minimum on-site landscaping requirements shall be established by Off-Street Parking Requirements (Title 10, Article 26 of the Tracy Municipal Code), except as modified below.

Summary of Requirements	*Industrial*
Landscaped frontage setback	15 feet
Minimum number of trees in parking area	1 tree per 10 spaces
Percentage of landscaping in parking areas with over	10 percent

- While commercial uses benefit from a well-landscaped parking area and visibility from the street, views of industrial uses benefit from a more generously landscaped streetscape. Thus, parking lot landscaping requirements for industrial uses may be reduced as specified in the Off-Street Parking Requirements in order to create a large landscape setback along the street. These provisions allow the reduction of 50 percent of the required landscaping based on the provision of a 15-foot landscape setback along the street frontage. The 15-foot strip may be included in the calculation of the total parking lot landscaping requirement. The remainder of the landscaping requirement must be distributed over the lot(s) to provide shade and landscape building frontage. Canopy trees shall be evenly distributed throughout the parking area to provide shade.
- On-site landscaping along rights-of-way between property lines and buildings, parking lots, or vehicular circulation improvements shall be installed by the property owner. This landscaping shall be designed as an extension of the adjacent public right-of-way landscaping. Completion of landscaping on the site shall be simultaneous with completion of the building and other improvements on the site.
- Landscaping shall not obstruct sight lines at street or driveway intersections.
- In place of the wheel stops at parking lots, landscape areas and pedestrian walkways may be extended not more than 2 feet into required parking spaces, to include a 6" concrete curb. In such cases, no credit toward parking lot landscape requirements shall be given for the resulting additional landscaping.

- Screening of the parking area from public rights-of-way in industrial areas shall be provided with a 2½ to 3-foot-high element, measuring from the top of the parking area pavement. Screening may consist of one or a combination of the following:

  a) Berms landscaped with ground cover, trees, and shrubs;
  b) Solid, low profile, decorative masonry walls;
  c) Evergreen shrubbery which, when solely used as screening, shall be continuously maintained to provide solid screening.

- Generous landscaping screening is required adjacent on all street frontages for industrial areas. These areas should be landscaped with a combination of trees, shrubs, and ground cover to soften views of parking areas.
- Tree planting and selection and massing should be compatible with streetscape plantings. Provide minimum one tree per 400 square feet of landscape setback. The plant palette should be relatively limited and applied in groupings of similar species rather than a few plants of many different species planted together.
- The use of water conserving plantings, such as California natives and drought tolerant trees, shrubs, and turf is encouraged. The use of turf in the narrow planting islands is discouraged.
- Live plant materials shall be used in all landscaped areas. The use of gravel, colored rock, bark, and other similar materials are not acceptable as a sole groundcover material.
- All trees shall be of 24-inch box size minimum at planting with a minimum branching height 5 years after installation of 10 feet above road or parking surfaces and 6 feet at pedestrian areas. Shrubs shall be of 5-gallon size minimum with a maximum on center spacing of 24 inches. Likewise, groundcover may be planted at 1 gallon size minimum with a maximum spacing of 12 inches on center.
- Automatic irrigation is required for all landscaped areas. Irrigation systems shall be designed so as not to overspray walks, buildings, and parking areas.

Screening and Storage

- All exterior trash areas, storage structures, and service areas shall be screened from public view with a wall or fence of a minimum height of 8 feet above the street curb level. Storage areas shall be set back a minimum of 50 feet from streets, unless fully enclosed in an architecturally compatible enclosure.
- No storage areas are allowed within the landscape easements, front setbacks, or side or rear yard landscaped buffers.
- Roof-mounted equipment shall be screened from street view. Pad-mounted transformers, utility connections, and meter boxes shall be screened and integrated into the site plan.
- The design of masonry walls, fencing, trash enclosures, and similar accessory site elements should be compatible with the architecture of the building and should use similar materials. Where masonry walls are along property frontage, they should enhance the entrance to the property and

should not impair traffic safety by obscuring views. Long expanses of wall surfaces should be architecturally designed to prevent monotony.

- The use of chain link fences shall be discouraged, and no chain link fences shall be visible from any public right-of-way.

Tracy Municipal Code

Chapter 7.08–Trees and Shrubbery

This chapter regulates removal, alteration, planting, and maintenance of public trees (mainly street trees) and shrubbery and requires a permit for removal or alteration of a street tree, including tree stumps. Street trees are defined as "any tree that has the center of its trunk at ground level located within the right-of-way or planting easement. Shrubs with multiple, or single, trunk(s) are included in this definition of 'street tree.' The [Parks and Community Services or Public Works] Director shall determine whether any specific woody plant shall be considered a 'street tree.'"[2] No replacement ratio for removed or altered trees is identified in the ordinance.

3.1.4 - Impacts and Mitigation Measures

Significance Criteria

The City, in its discretion, is using Appendix G of the State CEQA Guidelines as thresholds of significance for this project. According to CEQA Guidelines' Appendix G Environmental Checklist, to determine whether impacts related to aesthetics are significant environmental effects, the following questions are analyzed and evaluated. Would the proposed project:

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

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State Scenic Highway?

c) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Approach to Analysis

This analysis provides a discussion of the visual impacts to aesthetic resources associated with the proposed project and its potential upon the project site and the vicinity. Several variables affect the degree of visibility, visual contrast, and ultimately the determination as to project impacts: (1) scale and size of facilities, (2) viewer types and activities, (3) distance and viewing angle, and (4) influences of adjacent scenery or land uses. Viewer response and sensitivity vary depending on viewer attitudes and expectations. Viewer sensitivity is distinguished among project viewers in identified scenic corridors and from publicly accessible recreational and plaza areas. Recreational areas and scenic corridors are

[2] City of Tracy. 2002. Tracy Municipal Code Section 7.07.010 – Definitions.

considered to have relatively high sensitivity. Drivers along I-205 and I-5 are considered to have relatively low sensitivity because of the speed of travel along these highways.

FCS evaluated potential project impacts on aesthetics, light, and glare through site reconnaissance and review of applicable plans and policies. FCS personnel visited the project site in April 2020, and documented site conditions through photographs, notes, aerial photographs, topographical and street maps, and project plans and elevations to identify surrounding land uses and to evaluate potential impacts from project development. The General Plan, the Municipal Code and NEI Specific Plan were reviewed to determine applicable policies, development standards, and design guidelines for the proposed project, and project plans were reviewed to determine compliance with the applicable requirements of the General Plan, Municipal Code and the NEI Specific Plan.

Light and Glare

The analysis of light and glare impacts in this section focuses on the nature and magnitude of changes in light and glare conditions of the project site and surrounding area. If light and glare conditions of the proposed project and the existing environment are similar, then the visual compatibility would be high and any resulting impacts would be less than significant. If light and glare conditions of the proposed project would strongly contrast with existing light and glare or applicable General Plan or NEI Specific Plan policies and guidelines and/or any applicable Municipal Code requirements, then light and glare compatibility would be low and significant impacts may result. Relevant urban design policies, requirements and guidelines are used to provide conclusions regarding significance of individual- and cumulative-level light and glare impacts.

Scenic Vistas

Impact AES-1: The proposed project would not have a substantial adverse effect on a scenic vista.

Construction

The General Plan identifies scenic resources rather than scenic vistas. Therefore, for the purposes of this analysis, a significant impact would occur if project construction would result in substantial adverse effects on the view of a scenic resource as defined by the General Plan. During construction, views of scenic resources could be impacted because of construction vehicles and dust generated from construction of the proposed project.

As described in the Environmental Setting, the General Plan and City of Tracy identify the following scenic resources: views of the Diablo Range, natural landscapes surrounding the Paradise Cut, Old River, and Tom Paine Sloughs, expansive agricultural areas, and hillside areas. In addition, entrances to the City from major roadways called “entry corridors” or “gateways” are important in providing a transition from a rural to urban environment and include views from the exits on I-205 off MacArthur Drive, Tracy Boulevard, Grant Line Road and Eleventh Street, and exits from I-580 at Lammers Road and Corral Hollow Road. The scenic resources visible from the project site and from adjacent, publicly accessible roadways (Grant Line Road, Paradise Road, and California Avenue) include views of the “entry corridors” from eastbound I-205 off MacArthur Drive, views of expansive agricultural lands, and views of the Diablo Range to the west.

Construction of the proposed project would not significantly interrupt views from the entry corridor off MacArthur Drive because of the distance to that corridor and intervening development and trees, all of which would remain. However, given the expected duration of construction (approximately 3 years) and the proximity of the project site to surrounding roadways (Grant Line Road, Paradise Road, and California Avenue), construction of the proposed project would obstruct, to a certain degree, views of expansive agricultural lands on and adjacent to the project site from these roadways. Though the project site is located far from the Diablo Range (approximately 9 miles to the east of the range), the Diablo Range is still visible from California Avenue. The initial construction of each phase of the proposed project would include demolition, site preparation, and grading, and, while construction vehicles would be on-site, those vehicles would not be tall enough to obstruct the views of expansive agricultural lands or views of the Diablo Range from California Avenue, and these views would only be partially obstructed while the structures of the buildings are being erected. Dust caused by construction would be kicked up intermittently throughout the day but would not obstruct these views for long period of time. In addition, as described in Section 3.3, Air Quality, the proposed project would be required to incorporate dust control measures as stipulated by District Rule 8021. Because the project site is located to the north and east of Grant Line Road and Paradise Road, respectively, views of the Diablo Range from those roadways would not be significantly affected by the proposed project's construction. In summary, construction of the proposed project would not result in a substantial impact to publicly accessible views from certain roadways of certain scenic resources (expansive agricultural lands and certain views of the Diablo Range) as defined in the General Plan. Impacts would be less than significant.

Operation

As noted above, the General Plan identifies scenic resources, rather than scenic vistas. Therefore, a significant impact would occur if project operation would result in substantial adverse effects on the view of a scenic resource, as defined by the General Plan (scenic resources are detailed in the Environmental Setting section and above).

As anticipated in the General Plan, the area surrounding the project site is a transition zone between rural and agricultural lands to an urban environment, and the General Plan seeks to enhance the City's identity by creating a soft transition between urban and non-urban uses around the edge of the City. Techniques used to achieve this goal are addressed in Goal CC-4, which recommends the use of buffer zones and landscaping to create appropriate transitions. The proposed project would be required to adhere to this goal and associated policies, including the use of a buffer zone and landscaping, which could be provided by the proposed stormwater detention basin.

The scenic resources visible from the project site and adjacent, publicly accessible roadways (Grant Line Road, Paradise Road, and California Avenue) are views of the "entry corridors," which include the eastbound exit from I-205 off MacArthur Drive, views of expansive agricultural lands, and views of the Diablo Range to the west. During operation, the buildings would not significantly interrupt views from the entry corridor off MacArthur Drive because of the distance to those corridors as well as intervening development and trees, all of which would remain and drivers along I-205 are considered to have a relatively low sensitivity because of the speed of travel along the highway.

The stormwater detention basin and land set aside for the future interchange area would provide a sizable setback between the homes on California Avenue and the proposed buildings on the Tracy Alliance parcels and the required landscaped frontage (per the NEI Specific Plan) would provide a setback (at least 10 feet) on the Zuriakat parcel. The proposed buildings would be similar in height to the existing industrial development located between the publicly accessible roadways and the Diablo Range. In addition, pursuant to the NEI Specific Plan, the maximum permitted height for the proposed buildings would be 60 feet, and the proposed buildings, as designed, would be required to comply with this requirement. Even with the setback and adherence to applicable development standards and design guidelines, given the change in the project site from expansive agriculture land to a large industrial site and the proximity of the project site to Grant Line Road, Paradise Road, and California Avenue, operation of the proposed project would impact views of expansive agricultural lands on and adjacent to the project site from publicly accessible roadways. However, this type of change was envisioned by the City in the General Plan and is in keeping with the General Plan goals, objectives policies described above as well as other surrounding urbanized uses in the general vicinity.

Because the project site is to the north and east of Grant Line Road and Paradise Road, respectively, views of the Diablo Range available to drivers traveling on these roadways would not be significantly affected. Drivers along these roadways would have a low sensitivity because of the typical speed of travel (40 miles per hour) along this roadway. Views of the Diablo Range from California Avenue are already partially obstructed by the intervening industrial developments, and the proposed buildings would result in further view obstruction. Though the proposed project would result in further obstruction of views of the Diablo Range from drivers along California Avenue, this roadway is considered to have a low sensitivity because of the typical speed of travel. In addition, this type of industrial development would be a continuation of the type of development that was envisioned by the General Plan and the already increasingly urbanized nature of the general vicinity. Therefore, the proposed project would not substantially impact publicly accessible views of scenic resources as defined by the General Plan during operation, and impacts would be significant less than significant.

Level of Significance

Less than significant impact.

Scenic Highways

Impact AES-2:	**The proposed project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State Scenic Highway.**

Construction

A significant impact would occur if proposed construction would substantially damage scenic resources as seen from a designated scenic highway. As shown in Exhibit 3.1-1, I-580 is officially designated as a State Scenic Highway between I-205 and I-5 and is the nearest State Scenic Highway from the project site.[3] The project site is located approximately 7.2 miles northeast of I-580 and is not visible from that highway. Intervening trees and development, all of which would remain, would obscure the project site from being viewed from this portion of the highway. Therefore, the proposed project would not further obstruct views

[3] California Department of Transportation (Caltrans). 2019. List of Eligible and Officially Designated State Scenic Highways. August.

from this highway. Thus, demolition, grading, and tree removal during construction would not result in substantial adverse impacts to scenic resources within a State Scenic Highway, and no significant impact would occur.

Operation

A significant impact would occur if project operation would substantially damage scenic resources as seen from a designated scenic highway. Given the absence of scenic highways proximate to the project site, and the presence of intervening trees and development between the project site and the nearest scenic highway, the proposed project would not significantly and adversely affect views from a State Scenic Highway during operation, and no significant impact would occur.

Level of Significance

Less than significant impact.

Visual Character

Impact AES-3: The proposed project is in an urbanized area. The proposed project would not conflict with applicable zoning and other regulations governing scenic quality.

The proposed project is located in an increasingly urbanized area and therefore, impacts to scenic quality are analyzed in terms of compatibility with applicable zoning and other regulations governing scenic quality. The City's General Plan designates the project site as Industrial (I). Primary land uses allowed under this designation consist of flex/office space, manufacturing, warehousing and distribution, and ancillary uses for workers' needs (e.g., restaurants, parks, consumers services, etc.). The maximum allowed FAR is 0.5.[4] The project site is not currently within City limits although it is within the City's current SOI; accordingly, the City of Tracy does not currently provide a zoning designation for the project site. The co-applicants are requesting pre-zoning to a designation of NEI Specific Plan and an amendment to the boundaries of the NEI Specific Plan to include the project site. No other proposed amendments to the NEI Specific Plan are being proposed by the co-applicants, and the proposed project would be required to be consistent with this proposed zoning.

Pursuant to the NEI Specific Plan, the maximum height for the proposed project is 60 feet (similar to other industrial buildings in the area) and the proposed buildings would not exceed this height. This height would also be consistent and thus compatible with adjacent existing industrial uses to the south and west. As described in the Environmental Setting and Regulatory Setting, the General Plan and NEI Specific Plan contain design guidelines and policies and development standards that include measures to help ensure quality design. These standards, policies and guidelines address placement and appearance of buildings, circulation, interfacing with I-205, parking and loading, landscape design, fencing and screening, signage, exterior lighting, and sustainable design practices. As anticipated in the General Plan, the area surrounding the project site is a transition zone between rural and agricultural lands to an urban environment. The General Plan seeks to enhance the City's identity by creating a soft transition between urban and non-urban uses around the edge of the City. Techniques used to achieve this goal are addressed in Goal CC-4, which recommends the use of buffer zones and landscaping to create

[4] Design, Community and Environment (prepared for the City of Tracy). 2011. City of Tracy General Plan. February 1.

appropriate transitions. The proposed project would be required to adhere to this goal and associated policies, including the use of a buffer zone and landscaping, which could be provided by the proposed stormwater detention basin. The proposed buildings would be setback (by at least 10 feet) from California Avenue, which would provide a transition between the homes and agricultural lands adjacent to the proposed project.

The proposed project would be required to comply with all applicable design guidelines and policies and development standards provided by the City to ensure consistency and visual compatibility with surrounding existing and planned uses. Therefore, impacts related to consistency with applicable scenic quality regulations and visual quality and character would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Light and Glare

Impact AES-4:	**The proposed project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.**

Construction

Construction-related impacts would include a certain amount of light and glare from construction equipment and machinery and nighttime security lighting. Light and glare during the construction phase would be temporary and limited to the duration of construction. Pursuant to Section 4.12.820 of the Municipal Code, construction activities would be limited to the 7:00 a.m. and 10:00 p.m. on weekdays or between the hours of 7:00 a.m. and 10:00 p.m. on weekends and federal holidays, which would limit the amount of nighttime construction lighting. Though there would be some nighttime lighting, it would not occur during the most sensitive time period (after 10:00 p.m.) when people are sleeping. Therefore, construction-related impacts associated with light and glare would be less than significant.

Operation

Light and Glare

The proposed project would have a significant impact if substantial light or glare would adversely affect nighttime or daytime views, respectively, in the area. Sources of daytime glare include direct beam sunlight and reflections from windows, architectural coatings, glass, and other reflective surfaces. Nighttime illumination and associated glare are generally divided into two sources: stationary and mobile. Stationary sources include structure lighting and decorative landscaping, lighted signs, solar panels, and streetlights. Mobile sources are primarily headlights from motor vehicles.

As described in the Environmental Setting, the project site contains minimal existing light or glare due to the small amount of existing development on-site. Exterior lighting would be located around and within the project site for security and safety reasons. As a result, the proposed project would increase the amount of light and glare on the project site. The light fixtures used for the proposed project would meet all applicable safety standards pursuant to the latest adopted edition of the California Building Code and would be installed throughout the length of the New Private Drive pursuant to the Municipal Code. The proposed project would be required to adhere to all applicable development standards and design guidelines provided in the NEI Specific Plan intended to reduce daytime glare and nighttime

lighting; the City would confirm consistency with these requirements as part of the development review process. The NEI Specific Plan provides that one lighting fixture style be used on all streets. Where possible, light standards would be in roadway medians.[5] Project signage would be required to conform to the applicable requirements of Municipal Code Chapter 10.08, Article 35, except as modified by the NEI Specific Plan. A site-specific sign program would be prepared and integrated into the total design concept for each individual development proposal within the proposed project, and all signs would be approved prior to installation. Sign illumination would be confined to the area of the sign except when such illumination is back lighting for an otherwise non-illuminated sign. No sign illumination would cast a glare which is visible from any street. Furthermore, project landscaping would be included along all project boundaries and throughout the site consistent with applicable requirements of the Municipal Code and the NEI Specific Plan. Landscaping would further reduce light spillage off-site and help to block glare from significantly impacting nearby uses to the extent feasible.

Given the nature of the proposed uses, it is anticipated that there would be minimal windows, but the windows could result in glare. This glare would be partially obscured by landscaping, depending on the time of day and the location of the reflecting light source. Glare may also occur from on-site vehicles; however, such glare would be transient, depending upon the time of day and location of the vehicle. Because of the proposed project's location adjacent to other existing urban development, the proposed project would not be adding significant nighttime lighting or glare in an area with no existing lighting impacts. Therefore, impacts to light and glare would be less than significant.

Level of Significance

Less than significant impact.

3.1.5 - Cumulative Impacts

Visual Character and Views

For purposes of evaluating the proposed project's cumulative impacts on visual character and views, the relevant geographic scope of review is within the immediate vicinity surrounding the project site. This is the area within view of the proposed project and therefore, the area most likely to experience changes in visual character or impacts to views. The cumulative setting includes relevant past, present and reasonably foreseeable future development, including existing agricultural and industrial uses located in the above-referenced geographic scope. A portion of the southwest corner of the project site is currently occupied by several residences and agricultural structures. Existing industrial development is located between the publicly accessible roadways and the Diablo Range. Additionally, three probable future cumulative projects listed in Table 3-1, Cumulative Project 15, Cumulative Project 19, and Cumulative Project 24, are within approximately 1 mile of the project site, the same visible area as the proposed project. Cumulative Project 15 is approximately 0.6 mile to the southwest, Cumulative Project 19 is adjacent to the southwest corner of the project site (just south of the intersection of Grant Line Road and East Paradise Road), and Cumulative Project 24 is 0.5 mile west of the project site. The cumulative projects are subject to applicable City Code provisions, development standards and design policies and guidelines related to building heights, setbacks, undergrounding of utilities, landscaping, signage, and permitted land uses as described above, which would serve to reduce visual impacts to a certain extent. Because the past, present and reasonably foreseeable cumulative projects would be consistent with the

[5] City of Tracy. 2012. Northeast Industrial Specific Plan. Page 24. July 17.

types of projects envisioned in the General Plan and reflect the increasingly urbanized nature of this area, and would adhere to all applicable regulations and policies, the cumulative impact of these cumulative projects is less than significant.

As described above, the proposed project would not result in significant impacts with respect to visual character and views. Therefore, the proposed project would not have a cumulatively considerable contribution to the already less than significant cumulative impact with respect to visual character and views.

Light and Glare

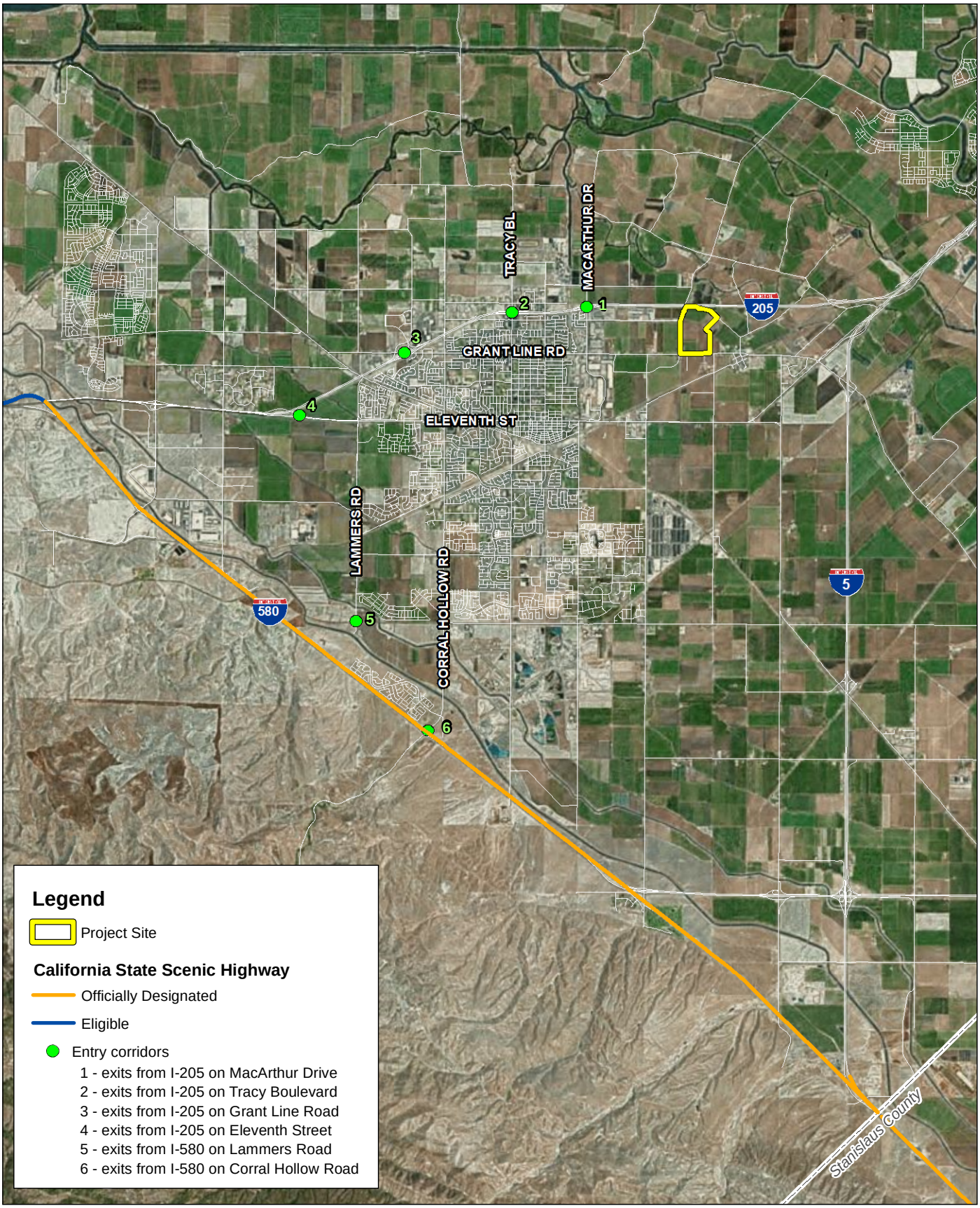
For purposes of evaluating the cumulative impacts on light and glare, the relevant geographic scope of review is within the immediate vicinity surrounding the project site. This is the area within view of the proposed project and therefore, the area most likely to experience changes in light and glare. The cumulative setting includes both existing agricultural land and outbuildings as well as industrial warehouses. Additionally, three reasonably foreseeable future cumulative projects listed in Table 3-1, Cumulative Project 15, Cumulative Project 19, and Cumulative Project 24, are within approximately 1 mile of the project site, the same visible area as the proposed project. Existing and new buildings associated with these existing and foreseeable cumulative projects could result in an increase in light and glare impacts on surrounding uses. Because these cumulative projects would be adjacent to other existing urban development, they would add significant nighttime lighting or glare in an area with no existing lighting impacts. The cumulative projects are required to adhere to all applicable development standards and design guidelines provided in the NEI Specific Plan intended to reduce daytime glare and nighttime lighting; the City would confirm consistency with these requirements as part of the development review process. Therefore, there is a less than significant cumulative impact to light and glare. As discussed above, the proposed project has a less than significant impact with respect to light and glare and its contribution to the already less than significant cumulative impact would not be considerable.

The proposed project combined with the relevant cumulative projects would include sources of daytime glare such as direct beam sunlight and reflections from windows, architectural coatings, glass, and other reflective surfaces. Nighttime illumination would include stationary sources such as structure lighting and decorative landscaping, lighted signs, solar panels, and streetlights. Mobile nighttime sources would primarily be from headlights from motor vehicles. As described above, the proposed project would not be adding significant lighting or glare in an area with no existing lighting impacts and would adhere to all applicable development standards provided in the NEI Specific Plan indented to reduce daytime glare and nighttime lighting and would not result in significant impacts with respect to light and glare to this already less than significant cumulative impact. As such, the proposed project, in conjunction with other cumulative projects, would not result in a cumulatively considerable contribution to the less than significant cumulative impact with respect to light and glare.

Level of Cumulative Significance

Less than significant impact.

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Source: Bing Aerial Imagery.

FIRSTCARBON SOLUTIONS™

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Exhibit 3.1-1
Designated California Scenic Highways and Entry Corridors

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3.2 - Agriculture and Forestry Resources

3.2.1 - Introduction

This section describes existing agricultural resources and potential environmental effects thereon from project implementation on the project site and its surrounding area. Descriptions and analyses in this section are based, in part, on information contained in the City of Tracy General Plan, and California Department of Conservation Farmland Mapping and Monitoring Program (FMMP) maps. The following comments were received during the EIR scoping period related to Agriculture and Forestry Resources:

- The commenter requests that the EIR specify the type, amount, and location of farmland conversion resulting directly and indirectly from implementation of the project. The commenter asks that impacts on any current and future agricultural operations in the vicinity of the project site (e.g., land use conflicts, increases in land values and taxes, loss of agricultural support infrastructure such as processing facilities, etc.) be discussed in the EIR.
- The commenter requests that the EIR describe the incremental impacts leading to cumulative impacts on agricultural land. This would include impacts from the project, as well as impacts from other past, current, and likely future projects.
- The commenter asks that any proposed mitigation measures for all impacted agricultural lands within the proposed project area be described.
- The commenter asks that the EIR evaluate the project's compatibility with, or potential contract resolutions for land in an agricultural preserve and/or enrolled in a Williamson Act contract.

3.2.2 - Environmental Setting

Farmland Classifications

The California Department of Conservation FMMP classifies cultivated agricultural land into four categories, listed below:

- **Prime Farmland:** Land with the best combination of physical and chemical features able to sustain the long-term production of agricultural crops. These lands have the soil quality, growing season, and moisture supply needed to produce sustained high yields.
- **Unique Farmland:** Land of lesser-quality soils used for the production of the State's leading agricultural crops. This land is usually irrigated but may include non-irrigated orchards or vineyards, as found in some climactic zones in California.
- **Farmland of Statewide Importance:** Land similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to hold and store moisture.
- **Farmland of Local Importance:** Land of importance in the local agricultural economy, as determined by each County's Board of Supervisors and a local advisory committee.

Williamson Act Contract

Williamson Act contracts are formed between a County or City and a landowner to restrict specific parcels of land to agricultural or related open space use in exchange for reduced property tax assessments. Private land within locally designated agricultural preserve areas are also eligible for enrollment under a contract. The minimum term for contracts is 10 years; however, since the contract term automatically renews annually, the actual term is essentially indefinite. Williamson Act contracts are described in more detailed in Section 3.2.4, Regulatory Framework.

3.2.3 - Existing Conditions

Agricultural Economy

According to the Economic Development Element of the City General Plan, between 1990 and 2000 Tracy's employment base nearly doubled as it shifted from a strong agricultural and transportation-driven economy to a services and retail economy. Agriculture remains a major activity within undeveloped portions of the Tracy Planning Area; based on available information included in the General Plan, a total of approximately 7,458 acres of agricultural uses were located within the Sphere of Influence (SOI): 1,618 within the city limits and 5,839 outside the city limits.[1]

Surrounding Agricultural Uses

Most areas north and east of the project site, in addition to a few parcels directly south and west, are currently used for agriculture. The County of San Joaquin zones areas north, east, and south of the project site (outside city limits) as AG-40, General Agriculture (40 acres) and designates these lands under the County General Plan as General Agriculture (A/G).[2]

Timber Land and Forest Land

Pursuant to California Public Resources Code Section 4526, timberland is defined as " . . . land, other than land owned by the federal government and land designated by the board as experimental forest land, which is available for, and capable of, growing a crop of trees of a commercial species used to produce lumber and other forest products, including Christmas trees…" Timberland zoned as Timberland Production, as defined by California Government Code Section 51104(g) is an area " . . . devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses . . . " As mapped by the United States Department of Agriculture Forest Service, there are no National Forest lands within the City Planning Area.[3]

City of Tracy

Farmland Classifications

Within the City, there are limited areas of Prime Farmland and Farmland of Local Importance. Land within the City limits contained approximately 1,415 acres of Prime Farmland, 198 acres of Unique

[1] Design, Community and Environment. 2011. City of Tracy General Plan (prepared for the City of Tracy). February 1.
[2] Mintier Harnish. 2016. San Joaquin County General Plan (prepared for San Joaquin County). December.
[3] United States Department of Agriculture (USDA). Forest Service, National Forest Type Groups. No date. Website: https://data.fs.usda.gov/geodata/rastergateway/forest_type/index.php. Accessed August 17, 2021.

Farmland, and 4,137 acres of Farmland of Local Importance.[4] Within the SOI, the City contained approximately 4,763 acres of Prime Farmland, 475 acres of Unique Farmland, and 4,958 acres of Farmland of Local Importance.

Soils

Capay clay and Stomar clay loam are the two most prominent soil types in the City and SOI.[5] Underlying soil types are relevant because certain types of soil are more suitable to agricultural uses than other soil types, and soil types assist the Natural Resources Conservation Service in its determination of farmland classifications.

Williamson Act Contract

In 2005, land within the city limits contained 1,360 lands under a Williamson Act Contract. Within its SOI, the City contained 4,073 acres of land under a Williamson Act Contract.[6]

Project Site

Farmland Classifications

Exhibit 3.2-1 depicts the Prime Farmland areas for the project site. The project site contains approximately 188 acres of Prime Farmland and approximately 4 acres of Semi-Agricultural and Rural Commercial Land, as classified by the FMMP.

Soils

Capay clay underlies the entire project site as shown in Exhibit 3.2-2.

Williamson Act Contract

The three Suvik Farms parcels are currently under Williamson Act contracts, totaling 46.61 acres (Exhibit 3.2-3). None of the other portions of the project site is currently under a Williamson Act contract.

Timberland and Forest Land

Most of the project site is occupied by row crops. A portion of the Tracy Alliance parcels are currently occupied by two existing approximately 1,000-square-foot residences (one occupied and one vacant), associated landscaping, and nine agricultural outbuildings used for equipment storage and maintenance, all located in the southwest corner of the property. The project site does not contain any forest land or timberland, as defined by Public Resource Code Section 4526, nor does it contain any timberland zoned Timberland Production, as defined by Government Code Section 51104(g).

[4] State of California. 2018. California Important Farmland Finder. Website: https://maps.conservation.ca.gov/DLRP/CIFF/. Accessed March 20, 2022.
[5] United States Department of Agriculture (USDA). Natural Resources Conservation Service. 2019. Web Soil Survey 3.3.2. September 16.
[6] City of Tracy. 2011. Design, Community and Environment. City of Tracy General Plan Draft Environmental Impact Report (prepared for the City of Tracy). February 1.

3.2.4 - Regulatory Framework

State

California Department of Conservation Classification

The California Department of Conservation, Division of Land Resource Protection developed the FMMP in 1984 to analyze impacts to California's agricultural resources. In the FMMP, land ratings are based on a land capability classification system, and land use.

California Land Conservation Act (Williamson Act)

The California Land Conservation Act of 1965 (Williamson Act) enables local governments to enter contracts with private landowners to restrict specific parcels of land to maintain agricultural or related open space use. As an incentive, landowners receive lower property tax assessments based on agricultural or open space land uses, as opposed to real estate value of the land.

California Public Resources Code

California Public Resource Code Section 4562 defines Forest Land and Timber Land as follows:

Forest Land

Land that can support 10 -percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.

Timber Land

Land, other than land owned by the federal government and land designated by the Board of Forestry and Fire Protection (Board) as experimental forest land, which is available for, and capable of, growing a crop of trees of any commercial species used to produce lumber and other forest products, including Christmas trees. Commercial species shall be determined by the Board on a District basis after consultation with the District committees and others.

Local

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

The San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) was adopted in 2000 to provide a strategy for balancing the need to conserve open space and the need to convert open space to non-open space uses while protecting the region's agricultural economy; preserving landowner property rights; providing for the long-term management of plant, fish and wildlife species, especially those that are currently listed, or may be listed in the future, under the Federal Endangered Species Act (FESA) or the California Endangered Species Act (CESA); providing and maintaining multiple-use open spaces that contribute to the quality of life of the residents of San Joaquin County; and accommodating a growing population while minimizing costs to project applicants and society at large. The SJMSCP is administered by the San Joaquin Council of Governments.

The project site is located within the Central Zone; Category C, Agriculture Habitat Open Spaces; Pay Zone B (Agricultural) of the SJMSCP. Adoption and implementation of the SJMSCP is intended to

provide full compensation and mitigation for potential environmental impacts to covered plants, fish and wildlife and demonstrate compliance pursuant to State and federal laws such as the California Environmental Quality Act (CEQA), the National Environmental Policy Act (NEPA), State Planning and Zoning Law, the State Subdivision Map Act, the Porter-Cologne Act, and the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2001 (LAFCO Law) with respect to species covered under the SJMSCP.

Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (LAFCo Law)

The Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 requires that LAFCo review and update the SOI for each district within the county. In determining the SOI for an agency, LAFCo must consider and prepare written determinations with respect to five factors [Government Code §56425(e)].[7] These factors relate to the present and planned land uses including agricultural and open-space lands, the present and probable need for public facilities and services, the present capacity of public facilities and adequacy of public services, the existence of any social or economic communities of interest in the area, and the present and probable need for public facilities and services of any disadvantaged unincorporated communities within the existing sphere.

Section 56377 says "in reviewing and approving or disapproving proposals which could reasonably be expected to induce, facilitate, or lead to the conversion of existing open-space lands to uses other than open-space uses, the commission shall consider all of the following policies and priorities:

a) Development or use of land for other than open-space uses shall be guided away from existing prime agricultural lands in open-space use toward areas containing nonprime agricultural lands, unless that action would not promote the planned, orderly, efficient development of an area.

b) Development of existing vacant or nonprime agricultural lands for urban uses within the existing jurisdiction of a local agency or within the sphere of influence of a local agency should be encouraged before any proposal is approved which would allow for or lead to the development of existing open-space lands for non-open-space uses which are outside of the existing jurisdiction of the local agency or outside of the existing sphere of influence of the local agency."

Under LAFCo law, "prime agricultural land" means an area of land, whether a single parcel or contiguous parcels, that has not been developed for a use other than an agricultural use and that meets any of the following qualifications:

a) Land that qualifies, if irrigated, for rating as class I or class II in the United States Department of Agriculture (USDA) Natural Resources Conservation Service land use capability classification, whether or not land is actually irrigated, provided that irrigation is feasible.

[7] Assembly Local Government Committee. 2021. Guide to the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000. December. Website: https://calafco.org/sites/default/files/documents/CKH%20Guide%20Update%202021.pdf. Accessed March 29, 2022.

b) Land that qualifies for rating 80 through 100 Storie Index Rating.[8]

c) Land that supports livestock used for the production of food and fiber and that has an annual carrying capacity equivalent to at least one animal unit per acre as defined by the United States Department of Agriculture in the National Range and Pasture Handbook, Revision 1, December 2003.

d) Land planted with fruit or nut-bearing trees, vines, bushes, or crops that have a nonbearing period of less than five years and that will return during the commercial bearing period on an annual basis from the production of unprocessed agricultural plant production not less than four hundred dollars ($400) per acre.

e) Land that has returned from the production of unprocessed agricultural plant products an annual gross value of not less than four hundred dollars ($400) per acre for three of the previous five calendar years.

City of Tracy

Feathering

The City's General Plan contains policies and actions intended to preserve and enhance open spaces, including agricultural land. One policy and action identify locations for soft and hard edges for the City. Soft edges are defined as a feathering of density between urban and rural uses. Whereas hard edges are an abrupt separation from urban and rural uses, such as a fence or highway. The City's General Plan establishes the following objectives and policies related to agricultural resources that are relevant to this analysis:

Policy

OSC-2.1 Policy 2 The City shall support San Joaquin County policies and zoning actions that maintain agricultural lands in viable farming units for those areas not currently designated for urban uses.

Objective OSC-2.2 Minimize conflicts between agricultural and urban uses.

Policies

OSC-2.2 Policy 1 Development projects shall have buffer zones, such as roads, setbacks and other physical boundaries, between agricultural uses and urban development. These buffer zones shall be of sufficient size to protect the agriculture operations from the impacts of incompatible development and shall be established based on the proposed land use, site conditions and anticipated agricultural practices. Buffers shall be located on the land where the use is being changed, and shall not become the maintenance responsibility of the City.

[8] The Storie index is a method of soil rating based on soil characteristics that govern the land's potential utilization and productivity capacity.

OSC-2.2 Policy 2 Land uses allowed near agricultural operations should be limited to those not negatively impacted by dust, noise, and odors.

City of Tracy Right to Farm Ordinance

Chapter 10.24 of the Tracy Municipal Code is a "Right to Farm" Ordinance intended to protect agricultural productivity in the City. The ordinance states:

a) No agricultural operation, or appurtenances thereof, conducted or maintained for commercial purposes, and in a manner consistent with the proper and accepted customs and standards as established and followed by similar agricultural operations in the same locality, shall be or become a nuisance, private or public, due to any changed condition in or about the locality. The above shall be the case provided that the agricultural operation has been in operation for more than three (3) years.

b) Subsection (a) of this section shall not apply whenever a nuisance results from the negligent or improper handling of any such agricultural operation by person(s) or entities responsible for such operations, and if the agricultural operation obstructs free passage or use in the customary manner of any navigable lake, river, bay, stream, canal, basin, or any public park, square, street or highway. Nothing in this chapter shall prevent anyone from complaining to any appropriate agency, or taking any other available remedy, concerning any unlawful or improper agricultural practice.

City of Tracy Agriculture Mitigation Fee Program

On June 7, 2005, the City Council adopted Chapter 13.28 (Agricultural Mitigation Fee) to its Municipal Code. In addition, the City Council adopted a resolution approving the Central Valley Farmland Trust Inc., as a qualifying agency to receive funds.[9] These actions were in response to the conclusions set forth in the General Plan EIR, which analyzed the potential impacts from long-term development in the City as reflected in the land use vision of the General Plan and identified the Agricultural Mitigation Fee Ordinance as a supportive policy that the City can use to reduce the impacts associated with conversion of Important Farmland. However, no feasible mitigation measures were identified to reduce this impact to below a level of significance, and the City Council adopted a Statement of Overriding Considerations with respect to the anticipated loss of Important Farmland that would result because of the City's adoption of the General Plan and implementation of the land use vision reflected therein.

The purpose of the fee is to mitigate the loss of productive agricultural lands converted for urban uses within the City by permanently protecting other agricultural lands planned for agricultural use and by working with farmers who voluntarily wish to sell or restrict their land in exchange for fair compensation. The relationship between the fee and the purpose is detailed in the Tracy Municipal Code Chapter 13.28 and in the South San Joaquin County Farmland Conversion Fee Nexus Study, dated July 18, 2005. This program requires the owner of farmland that is to be developed for private urban uses (such as residential, commercial, industrial, or other urban uses) to pay an Agricultural Mitigation Fee for each acre of farmland developed. The City collects fees at the time building

[9] Tracy City Council. 2008. Resolution No. 2008-204. October 7.

permits are issued, and fees are used to purchase agricultural conservation easements on agricultural lands.

3.2.5 - Impacts and Mitigation Measures

Significance Criteria

The City, in its discretion, is utilizing CEQA Guidelines Appendix G, to determine whether impacts to agriculture and forestry resources are significant environmental effects, the following questions are analyzed and evaluated. Would the project:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

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

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code [PRC] § 12220(g)), timberland (as defined by PRC § 4526), or timberland zoned Timberland Production (as defined by Government Code § 51104(g))?

d) Result in the loss of forest land or conversion of forest land to non-forest use?

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

Approach to Analysis

FirstCarbon Solutions (FCS) evaluated potential impacts on agricultural resources through review of FMMP and Williamson Act maps, site plans, and applicable plans and policies.

Impacts Evaluation

Conversion of Important Farmland to Non-Agricultural Use

Impact AG-1:	**The project would convert Farmland pursuant to the FMMP, to non-agricultural use.**

The project site contains approximately 188 acres of Prime Farmland, pursuant to the current FMMP mapping (Exhibit 3.2-1) available at the time environmental review commenced for the proposed project.[10] The proposed project is consistent with the land use designation and densities established by the General Plan and conversion of the project site to industrial use was envisioned as part of buildout under the General Plan and evaluated and disclosed under the General Plan EIR. Nevertheless, for purposes of a conservative analysis, this Draft EIR acknowledges that the proposed project would result in the loss of Prime Farmland as a result of its conversion of Prime Farmland to urban uses. On June 7, 2005, the City Council adopted Chapter 13.28 Agricultural Mitigation Fee to its Municipal Code. In addition, the City Council adopted a resolution approving the Central Valley

[10] California Department of Conservation, Division of Land Resource Protection. 2018. Farmland Mapping and Monitoring Program.

Farmland Trust as a qualifying agency to receive funds.[11] This program serves as mitigation to the extent feasible for the conversion of Prime Farmland. In accordance with Chapter 13.28 of the Municipal Code, Agricultural Mitigation Fee, the developers of the Suvik Farms, Zuriakat, and Tracy Alliance parcels would each be required to pay applicable Agricultural Mitigation fees in connection with individual development proposals as implemented by MM AG-1. In addition, the SJMSCP works at a regional level to promote the permanent preservation of agricultural lands in San Joaquin County. The SJMSCP calls for the preservation of about 100,000 acres, including 57,000 agricultural acres, over a 50-year period for the protection of a variety of biological species. Most agricultural conservation easements in the County are the product of the SJMSCP. The proposed project would be required to comply with applicable provisions of the SJMSCP (see Section 3.4, Biological Resources, for more information), which may include payment of development fees for conversion of lands. Even with the payment of City mitigation fees and adherence to the SJMSCP, the proposed project would result in significant and unavoidable impacts related to the conversion of Farmland as identified by FMMP mapping to non-agricultural use since the foregoing would not fully avoid the impacts of this conversion**.**

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM AG-1 Payment of Agricultural Mitigation Fees

At the time of issuance of building permits for each individual development proposal, the relevant applicant(s) for the subject development proposal shall pay the applicable Agriculture Mitigation Fee in accordance with Chapter 13.28 of the Municipal Code.

Level of Significance After Mitigation

Significant and unavoidable.

Conflict with Existing Zoning or Williamson Act Contract

Impact AG-2: The project would not conflict with existing zoning for agricultural use, or a Williamson Act contract.

Agricultural Zoning

The existing zoning for the project site is AG-40 under the County's General Plan. However, the co-applicants are requesting pre-zoning to "Northeast Industrial (NEI) Specific Plan," which would take effect upon annexation into the City. This zoning district would be consistent with the existing Industrial General Plan designation under the City's General Plan, and project development would be governed by the NEI Specific Plan (as amended), which allows Light Industrial uses.[12] Because the pre-zoning allows for industrial use, the change in zoning from AG-40 under the County's General

[11] Tracy City Council. 2008. Resolution No. 2008-204. October 7.
[12] City of Tracy. 2016. Tracy Municipal Code Section 10.08.3022–Northeast Industrial Specific Plan. October 18.

Plan to NEI Specific Plan zoning would ensure there is no conflict with existing zoning. Impacts would be less than significant.

Williamson Act Contracts

The Suvik Farms parcels are covered by an active Williamson Act contract; none of the other lands within the project site is covered by an active Williamson Act contract. Pursuant to the applicable provisions of the California Government Code, the Suvik Farms landowners initiated a Notice of Nonrenewal in 2017 for the contract, beginning a nine-year process to formally expire the contract. Based on the date of the Notice of Nonrenewal, the contract will expire on August 21, 2026. Additionally, State law provides a detailed procedure to terminate a Williamson Act contract. Accordingly, should development of the Suvik Farms parcels be pursued prior to the Williamson Act contract expiration date, then pursuant to the provision of the Williamson Act, the applicant for the development of the Suvik Farms parcels would be required to petition the City Council for cancellation, or agree to the imposition of a condition of approval such that no permit for development on the Suvik Farms parcels would be issued prior to the August 21, 2026 expiration date. Accordingly, because the Suvik Farms parcels applicant would be required to follow applicable provisions of State law, the proposed project would not result in any conflicts with a Williamson Act Contract and impacts would be less than significant.

Level of Significance

Less than significant impact.

Conflict with Existing Forest Land Zoning

Impact AG-3:	**The project would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production.**

The project site does not contain any forest land or timberland, as defined by Public Resource Code Section 4526, nor does it contain any timberland zoned Timberland Production, as defined by Government Code Section 51104(g). This condition precludes the possibility of the proposed project conflicting with forest zoning of forest land or timberland. No impact would occur.

Level of Significance

No impact.

Conversion of Forest Land to Non-Forest Use

Impact AG-4:	**The project would not result in the loss of forest land or conversion of forest land to non-forest use.**

As explained more fully above, the project site is adjacent to urbanized, industrial land uses (with these surrounding uses also not containing any forest land), and does not contain any forest land. This condition precludes the possibility of the proposed project converting forest land to non-forest use. Therefore, no impacts would occur.

Level of Significance

No impact.

Other Changes to Convert Farmland to Non-Agricultural Use or Forest Land to Non-Forest Use

Impact AG-5:	**The project would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.**

Impact Analysis

As discussed above, the County of San Joaquin zones areas north, east, and south of the project site (outside City limits) as AG-40, General Agriculture (40 acres), and designates these lands under the County General Plan as General Agriculture (A/G).[13] Similar to the proposed project, the land directly northwest of the project site (north of I-205) is within the City's SOI and is designated Industrial by the General Plan. For this land to be converted to non-agricultural uses, it would need to be annexed into the City of Tracy and would require the completion of CEQA analysis prior to the discretionary approval of any development. However, the proposed project does not include the annexation of these lands and, therefore, would not result in a change in the existing environment that could result in conversion of Farmland to non-agricultural use. Though there is a possibility this land would be converted to non-agricultural uses in the future, the proposed project would not be the cause of that conversion. Moreover, the proposed project would be required to adhere to applicable Right-to-Farm provisions described above, which would help to avoid any potential land use incompatibility issues that could otherwise facilitate the eventual conversion of other agricultural lands.

As explained more fully above, the project site is adjacent to urbanized, industrial land uses; these adjacent lands does not contain any forest land. This condition precludes the possibility of the proposed project converting forest land to non-forest use.

Impacts under this criterion would be less than significant.

Level of Significance

Less than significant impact.

3.2.6 - Cumulative Impacts

Agriculture

The geographic scope of this cumulative analysis includes past, present and reasonably foreseeable future projects on lands within the NEI Specific Plan area. The relevant Cumulative Projects 11, 12, 13, 14, 15, 19, are all planned for industrial uses; the relevant Cumulative Projects 27 and 35 are transportation projects. Much of the NEI Specific Plan area consists of Prime Farmland that would be converted to non-agricultural uses with implementation of the relevant cumulative projects, as already envisioned by the Industrial general plan and specific plan designations. Like the proposed project, any of the cumulative projects that would convert Farmland to non-agricultural uses would pay the applicable Agricultural Mitigation Fee. In addition, the SJMSCP works at a regional level to promote the permanent preservation of agricultural lands in San Joaquin County. The SJMSCP calls for the preservation of about 100,000 acres, including 57,000 agricultural acres, over a 50-year period for the protection of a variety of biological species. Most agricultural conservation easements

[13] Mintier Harnish. 2016. San Joaquin County General Plan (prepared for San Joaquin County). December.

in the County are the product of the SJMSCP. All of the cumulative projects are within San Joaquin County and would be required to adhere to the SJMSCP, which may include payment of development fees for conversion of lands. Even with payment of this fee and adherence to the SJMSCP, the development of the cumulative projects would result in a significant and unavoidable impact, which the General Plan EIR previously disclosed and the City Council previously adopted a Statement of Overriding Considerations in connection with the Council's adoption of the General Plan. As discussed above, the proposed development of the project would result in the loss of approximately 188 acres of Prime Farmland, which would result in a project-level significant and unavoidable impact. Therefore, given the existence of a cumulative impact with respect to agricultural resources, the proposed project's contribution to this significant cumulative effect to agricultural resources would be considered cumulatively considerable.

Forestry Resources

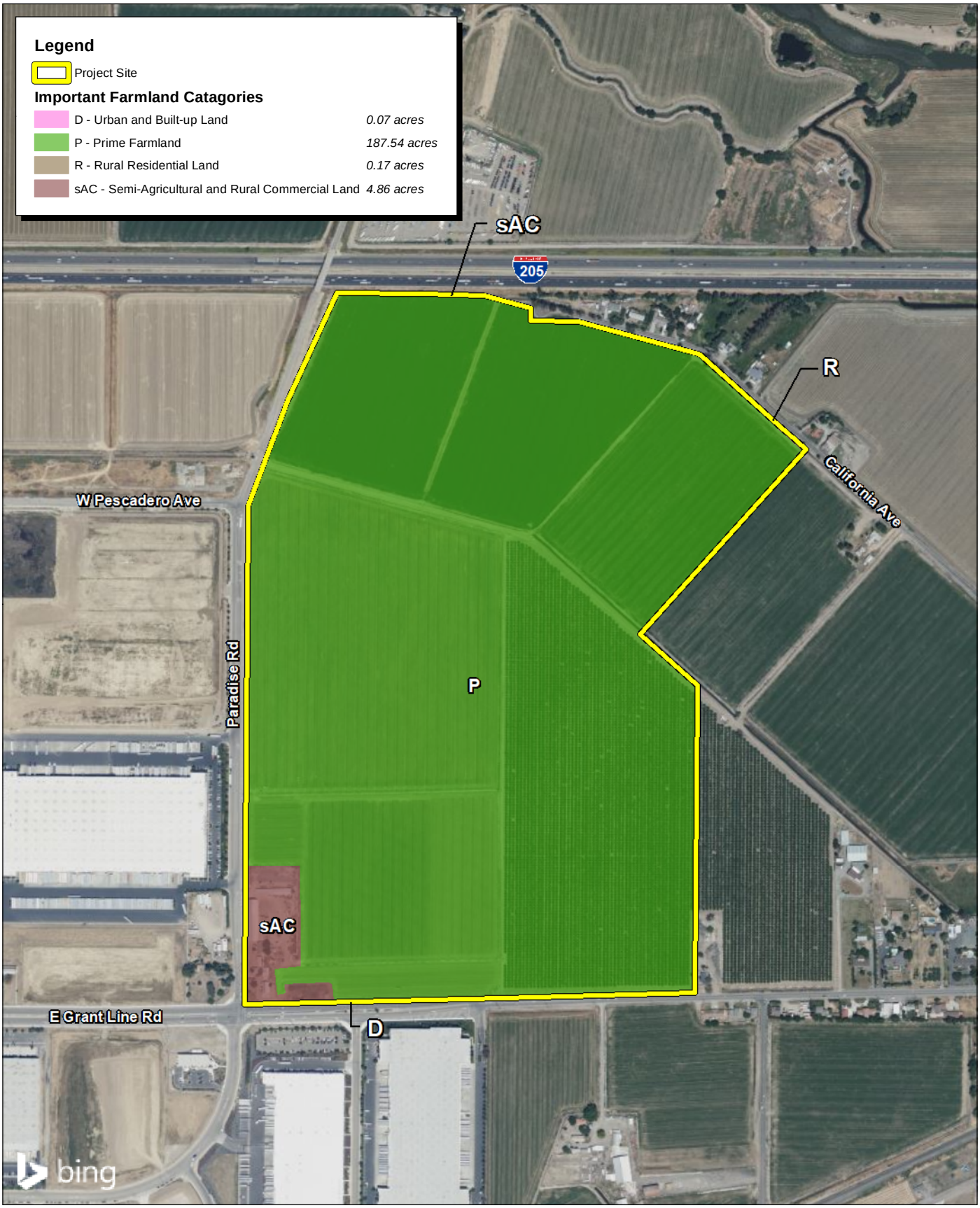
Similar to the relevant geographic scope for agricultural resources described above, the geographic scope of this cumulative analysis with respect to forestry resources is lands within the NEI Specific Plan area. As mapped by the United States Department of Agriculture Forest Service, there are no National Forest lands within the City or the City's SOI, which includes the NEI Specific Plan area.[14] The project site and the cumulative project sites do not contain forest land or timberland, as defined by Public Resource Code Section 4526, nor do they contain any timberland zoned Timberland Production, as defined by Government Code Section 51104(g). Therefore, the cumulative projects would not conflict with forest zoning or converting forest land to non-forest use, and thus there would be no significant cumulative impact in this regard. Furthermore, this condition precludes the possibility of the proposed project, in conjunction with the cumulative projects, to conflict with forest zoning or converting forest land to non-forest use. Therefore, the proposed project would not have a cumulatively considerable contribution to the already less than significant cumulative impact with respect to forestry resources.

Level of Cumulative Significance

Significant and unavoidable (with respect to Agricultural Resources).

Less than significant impact (with respect to Forestry Resources).

[14] U.S. Department of Agriculture, Forest Service, National Forest Type Groups. No date. Website: https://data.fs.usda.gov/geodata/rastergateway/forest_type/index.php. Accessed July 14, 2021.



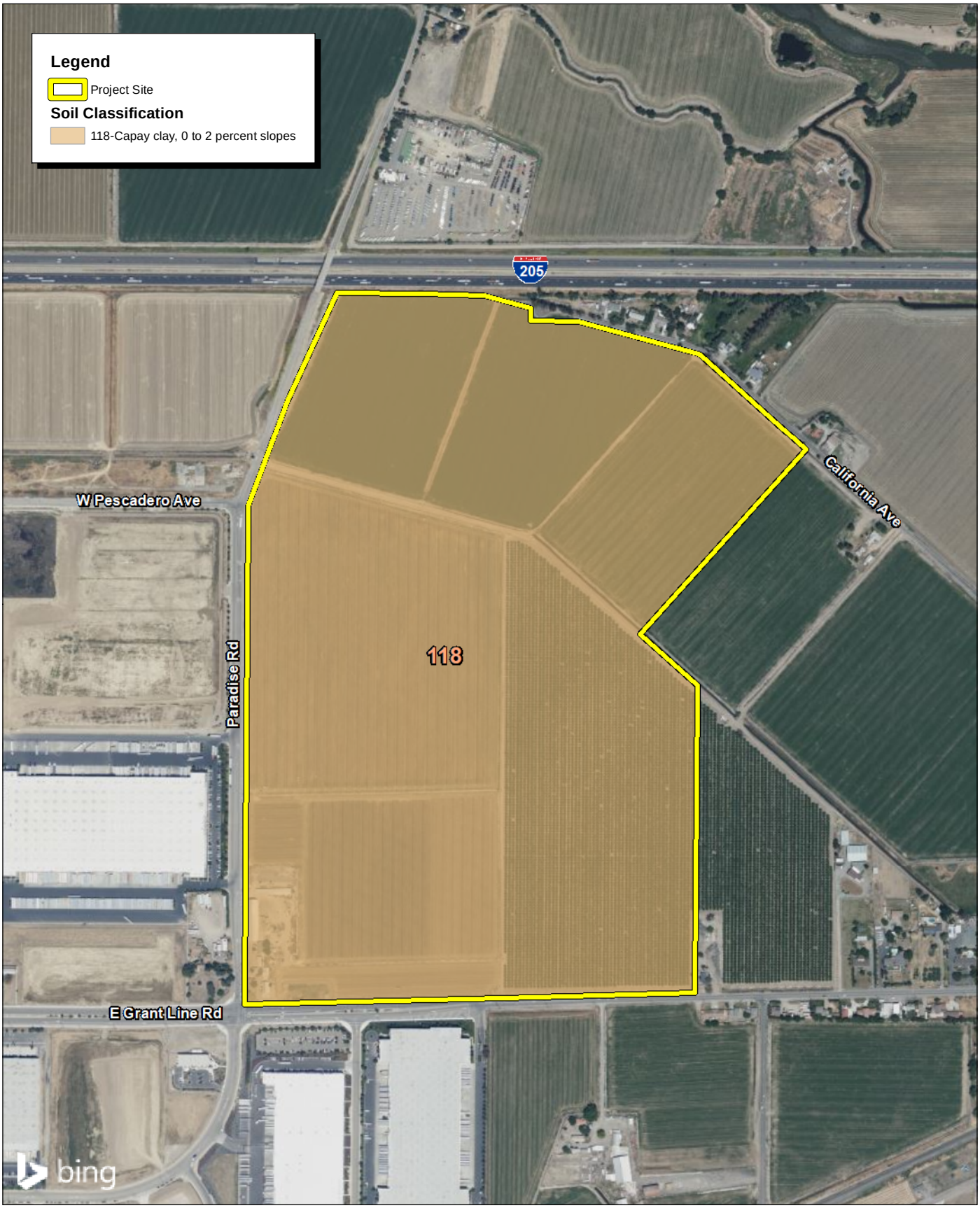
Source: Bing Aerial Imagery. County of San Joaquin FMMP GIS Data, 2016.

FIRSTCARBON SOLUTIONS™

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Exhibit 3.2-1
Important Farmland Map

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Source: Bing Aerial Imagery. USDA Soils Data Mart, San Joaquin.

FIRSTCARBON SOLUTIONS™

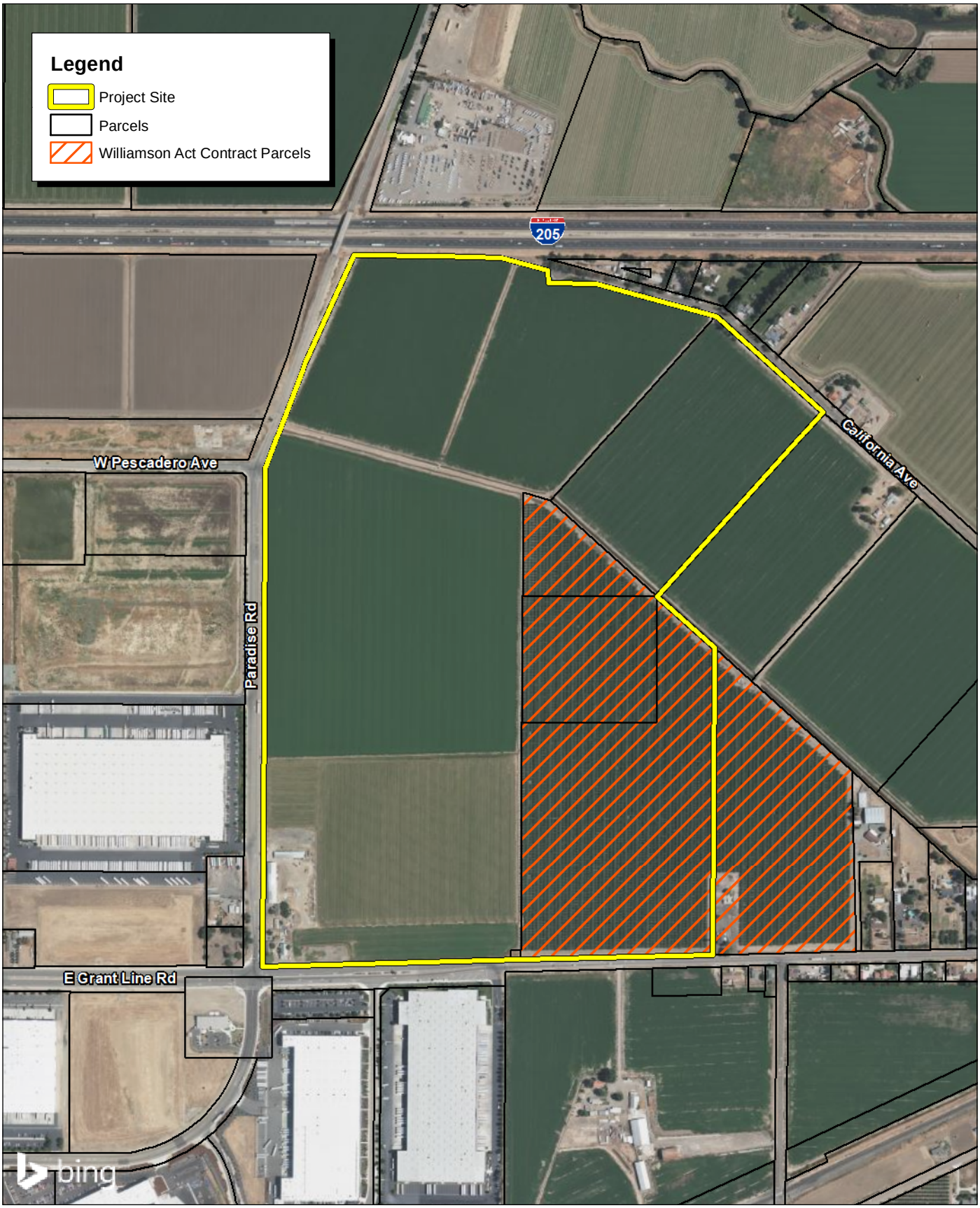
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Exhibit 3.2-2
Soils Map

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CITY OF TRACY
TRACY ALLIANCE PROJECT
ENVIRONMENTAL IMPACT REPORT

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Source: Bing Aerial Imagery. County of San Joaquin.

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Exhibit 3.2-3
County Williamson Act Contracts

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CITY OF TRACY
TRACY ALLIANCE PROJECT
ENVIRONMENTAL IMPACT REPORT

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3.3 - Air Quality

3.3.1 - Introduction

This section describes existing air quality conditions regionally and locally as well as the relevant regulatory framework. This section also evaluates the potential impacts related to air quality that could result from implementation of the proposed project. Information included in this section is based, in part, on project-specific air quality modeling results included in Appendix B.

3.3.2 - Environmental Setting

The proposed project is located in unincorporated San Joaquin County adjacent to the City of Tracy's municipal boundaries, within the San Joaquin Valley Air Basin (Air Basin). Regional and local air quality is impacted by topography, dominant airflows, atmospheric inversions, location, and season. The following section describes these conditions as they pertain to the Air Basin.

San Joaquin Valley Air Basin

The information in this section is primarily from the San Joaquin Valley Air Pollution Control District (Valley Air District) Guide for Assessing and Mitigating Air Quality Impacts (GAMAQI) and the accompanying Technical Document.[1,2]

Topography

The topography of a region is important for air quality because mountains can block airflow that would help disperse pollutants and can channel air from upwind areas that transports pollutants to downwind areas. The Valley Air District covers the entirety of the Air Basin. The Air Basin is generally shaped like a bowl. It is open in the north and is surrounded by mountain ranges on all other sides. The Sierra Nevada lies along the eastern boundary (8,000 to 14,000 feet in elevation), the Coast Ranges are along the western boundary (3,000 feet in elevation), and the Tehachapi Mountains are along the southern boundary (6,000 to 8,000 feet in elevation).

Climate

The climate is important for air quality because of differences in the atmosphere's ability to trap pollutants close to the ground, creating adverse air quality or rapidly dispersing pollutants over a wide area, thus preventing high concentrations from accumulating under different climatic conditions. The Air Basin has an "inland Mediterranean" climate and is characterized by long, hot, dry summers and short, foggy winters. Sunlight can be a catalyst in the formation of some air pollutants (such as ozone); the Air Basin averages over 260 sunny days per year.

Dominant airflows provide the driving mechanism for transport and dispersion of air pollution. The mountains surrounding the Air Basin form natural horizontal barriers to the dispersion of air contaminants. The wind generally flows south-southeast through the Valley, through the Tehachapi

[1] San Joaquin Valley Air Pollution Control District (Valley Air District). 2015. Guidance for Assessing and Mitigating Air Quality Impact. Website: http://www.valleyair.org/transportation/GAMAQI_12-26-19.pdf Accessed January 28, 2021.

[2] San Joaquin Valley Air Pollution Control District (Valley Air District). 2015. 2015 Plan for the 1997 PM 2.5 Standard. Website: http://www.valleyair.org/Air_Quality_Plans/docs/PM25-2015/2015-PM2.5-Plan_Bookmarked.pdf Accessed January 28, 2021.

Pass and into the Southeast Desert Air Basin portion of Kern County. As the wind moves through the Air Basin, it mixes with the air pollution generated locally, generally transporting air pollutants from the north to the south in the summer and in a reverse flow in the winter.

Existing Air Quality Conditions

The local air quality can be evaluated by reviewing relevant air pollution concentrations near the project site and vicinity. Table 3.3-1 summarizes 2017 through 2019 published monitoring data, which is the most recent 3-year period available as of the date of commencement of environmental review for the proposed project. The table displays data from the Tracy-Airport monitoring station (located approximately 5.2 miles southwest of the project site) for ozone, nitrogen dioxide, and particulate matter, including dust, 10 micrometers or less in diameter (PM_{10}) concentrations. As particulate matter, including dust, 2.5 micrometers or less in diameter ($PM_{2.5}$) concentrations were not available at the Tracy-Airport monitoring station. Therefore, the next closest station with $PM_{2.5}$ was used to provide $PM_{2.5}$ concentrations representative of the project site and vicinity. Table 3.3-1 provides $PM_{2.5}$ concentrations from the Manteca-530 Fishback Road monitoring station, located approximately 7.5 miles northeast of the project site. No carbon monoxide (CO) or sulfur dioxide (SO_2) concentrations were available at any nearby monitoring station. The data shows that during the above-referenced 3 years, the project site and vicinity have exceeded the national ozone and $PM_{2.5}$ standards and the State ozone and PM_{10} standards. The data in the table reflects the concentration of the pollutants in the air, measured using air monitoring equipment. This differs from emissions, which are calculations of a pollutant being emitted over a certain period.

Table 3.3-1: Air Quality Monitoring Summary

Air Pollutant	Averaging Time	Item	2017	2018	2019
Ozone[1]	1 Hour	Max 1 Hour (ppm)	**0.093**	**0.099**	**0.095**
		Days > State Standard (0.09 ppm)	0	**1**	**1**
	8 Hours	Max 8 Hours (ppm)	**0.082**	**0.081**	**0.079**
		Days > State Standard (0.07 ppm)	**7**	**8**	**3**
		Days > National Standard (0.075 ppm)	**5**	**8**	**3**
Carbon monoxide[3]	8 Hours	Max 8 Hours (ppm)	ND	ND	ND
		Days > State Standard (9.0 ppm)	ND	ND	ND
		Days > National Standard (9 ppm)	ND	ND	ND
Nitrogen dioxide[1]	Annual	Annual Average (ppm)	0.004	0.005	0.004
	1 Hour	Max 1 Hour (ppm)	0.041	0.049	0.037
		Days > State Standard (0.18 ppm)	0	0	0
Sulfur dioxide[3]	Annual	Annual Average (ppm)	ND	ND	ND
	24 Hours	Max 24 Hours (ppm)	ND	ND	ND
		Days > State Standard (0.04 ppm)	ND	ND	ND

Air Pollutant	Averaging Time	Item	2017	2018	2019
Inhalable coarse particles (PM_{10})[1]	Annual	Annual Average (µg/m^3)	22.6	24.7	19.4
	24 hours	24 Hours (µg/m^3)	**152.0**	**250.2**	**241.4**
		Days > State Standard (50 µg/m^3)	ID	ID	ID
		Days > National Standard (150 µg/m^3)	0	**2**	**1**
Fine particulate matter ($PM_{2.5}$) [2]	Annual	Annual Average (µg/m^3)	11.1	13.4	ID
	24 Hours	24 Hours (µg/m^3)	**50.0**	**180.0**	**42.4**
		Days > National Standard (35 µg/m^3)	**9**	**15**	**2**

Notes:
> = exceed
µg/m^3 = micrograms per cubic meter
max = maximum
ND = no data
ppm = parts per million
Bold = exceedance
State Standard = California Ambient Air Quality Standard
National Standard = National Ambient Air Quality Standard
[1] Ozone, PM_{10}, and NO_2 concentrations and exceedances were drawn from the Tracy-Airport monitoring station.
[2] $PM_{2.5}$ concentrations and exceedances were drawn from the Tracy-Airport monitoring station.
[3] No concentrations of SO_2 and CO were unavailable for monitoring sites in the project area.

The health impacts of the various air pollutants of concern can be presented in a number of ways. The clearest in comparison is to the State and federal ozone standards. If concentrations are below the applicable ozone standard, industry standards generally indicate that there would not be a health impact. When concentrations exceed the applicable ozone standard, impacts will vary based on the amount the standard is exceeded. The United States Environmental Protection Agency (EPA) developed the Air Quality Index (AQI) as an easy-to-understand measure of health impacts compared with concentrations in the air. Table 3.3-2 provides a description of the health impacts ozone at different concentrations.

Table 3.3-2: Air Quality Index and Health Effects

Air Quality Index/ 8-hour Ozone Concentration	Health Effects Description
AQI—0–50 (Good)/ Concentration 54 parts per billion (ppb)	**Sensitive Groups**: Children and people with asthma are the groups most at risk.
	Health Effects Statements: None.
	Cautionary Statements: None.
AQI—51–100 (Moderate)/ Concentration 70 ppb	**Sensitive Groups**: Children and people with asthma are the groups most at risk.
	Health Effects Statements: Unusually sensitive individuals may experience respiratory symptoms.

Air Quality Index/ 8-hour Ozone Concentration	Health Effects Description
	Cautionary Statements: Unusually sensitive people should consider limiting prolonged outdoor exertion.
AQI—101–150 (Unhealthy for Sensitive Groups)/Concentration 85 ppb	**Sensitive Groups**: Children and people with asthma are the groups most at risk.
	Health Effects Statements: Increasing likelihood of respiratory symptoms and breathing discomfort in active children and adults and people with respiratory disease, such as asthma.
	Cautionary Statements: Active children and adults, and people with respiratory disease, such as asthma, should limit prolonged outdoor exertion.
AQI—151–200—(Unhealthy)/Concentration 105 ppb	**Sensitive Groups**: Children and people with asthma are the groups most at risk.
	Health Effects Statements: Greater likelihood of respiratory symptoms and breathing difficulty in active children and adults and people with respiratory disease, such as asthma; possible respiratory effects in general population.
	Cautionary Statements: Active children and adults, and people with respiratory disease, such as asthma, should avoid prolonged outdoor exertion; everyone else, especially children, should limit prolonged outdoor exertion.
AQI—201-300—(Very Unhealthy)/Concentration 200 ppb	**Sensitive Groups**: Children and people with asthma are the groups most at risk.
	Health Effects Statements: Increasingly severe symptoms and impaired breathing likely in active children and adults and people with respiratory disease, such as asthma; increasing likelihood of respiratory effects in general population.
	Cautionary Statements: Active children and adults, and people with respiratory disease, such as asthma, should avoid all outdoor exertion; everyone else, especially children, should limit outdoor exertion.
Source: AirNow.gov. U.S. Air Quality Index Calculator. Website: https://www.airnow.gov/aqi/aqi-calculator/. Accessed February 16, 2021.	

Based on the AQI scale for the 8-hour ozone standard, Tracy experienced 18 days in the above-referenced 3 years that would be categorized as unhealthful for sensitive groups (AQI 150), as measured at the Tracy-Airport monitoring station.

Attainment Status

The EPA and the California Air Resources Board (ARB) designate air basins where ambient air quality standards are exceeded as “nonattainment” areas. If standards are met, the area is designated as an “attainment” area. If there is inadequate or inconclusive data to make a definitive attainment designation, they are considered “unclassified.” National nonattainment areas are further

designated as marginal, moderate, serious, severe, or extreme as a function of deviation from standards.

Each standard has a different definition, or "form" of what constitutes attainment, based on specific air quality statistics. For example, the federal 8-hour CO standard is not to be exceeded more than once per year; therefore, an area is in attainment of the CO standard if no more than one 8-hour ambient air monitoring measurement exceeds the threshold per year. In contrast, the federal annual $PM_{2.5}$ standard is met if the 3-year average of the annual average $PM_{2.5}$ concentration is less than or equal to the standard.

The current attainment designations for the San Joaquin Valley Air Basin are shown in Table 3.3-3. The Air Basin is designated as nonattainment for ozone, PM_{10}, and $PM_{2.5}$.

Table 3.3-3: San Joaquin Valley Air Basin Attainment Status

Pollutant	State Status	National Status
Ozone–1 Hour	Nonattainment/Severe	No Standard
Ozone–8 Hours	Nonattainment	Nonattainment/Extreme
Carbon monoxide	Attainment/Unclassified	Merced, Madera, and Kings Counties are unclassified; others are in Attainment
Nitrogen dioxide	Attainment	Attainment/Unclassified
Sulfur dioxide	Attainment	Attainment/Unclassified
PM_{10}	Nonattainment	Attainment
$PM_{2.5}$	Nonattainment	Nonattainment
Lead	Attainment	No Designation/Classification
Source: California Air Resources Board (ARB). 2021. Maps of State and Federal Area Designations. Website: https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations. Accessed February 16, 2021.		

3.3.3 - Regulatory Framework

Air pollutants are regulated primarily to protect human health and for secondary effects such as visibility and property damage from pollutant deposition. The Clean Air Act (CAA) of 1970 tasks the EPA with setting air quality standards. The State of California also sets air quality standards that are in some cases more stringent than federal standards and address additional pollutants. The following section describes these federal and State standards and the health effects of the regulated pollutants.

Clean Air Act

Congress established much of the basic structure of the CAA in 1970 and made major revisions in 1977 and 1990. Six common air pollutants (also known as criteria pollutants) are addressed in the CAA. These are particulate matter, ground-level ozone, carbon monoxide, sulfur oxides, nitrogen oxides, and lead. The EPA calls these pollutants criteria air pollutants because it regulates them by developing human health-based and/or environmentally based criteria (science-based guidelines)

for setting permissible levels. The set of limits based on human health are called primary standards. Another set of limits intended to prevent environmental and property damage are called secondary standards.[3] The federal standards are called National Ambient Air Quality Standards (NAAQS). The air quality standards provide benchmarks for determining whether air quality is healthy at specific locations and whether development activities will cause or contribute to a violation of the standards. The criteria pollutants are:

- Ozone
- Nitrogen dioxide (NO_2)
- Lead
- Particulate matter (PM_{10} and $PM_{2.5}$)
- Carbon monoxide (CO)
- Sulfur dioxide

The federal standards were set to protect public health, including that of sensitive individuals; thus, the EPA is tasked with updating the standards as more medical research is available regarding the health effects of the criteria pollutants. Primary federal standards are the levels of air quality necessary, with an adequate margin of safety, to protect the public health.

California Clean Air Act

The California Legislature enacted the California Clean Air Act (CCAA) in 1988 to address air quality issues of concern not adequately addressed by the federal CAA at the time. California's air quality problems were and continue to be some of the most severe in the nation and required additional actions beyond the federal mandates. The ARB administers California Ambient Air Quality Standards (CAAQS) for the 10 air pollutants designated in the CCAA. The 10 State air pollutants are the six federal standards listed above as well as visibility reducing particulates, hydrogen sulfide, sulfates, and vinyl chloride. The EPA authorized California to adopt its own regulations for motor vehicles and other sources that are more stringent than similar federal regulations implementing the CAA. Generally, the planning requirements of the federal CAA are less stringent than the CCAA; therefore, consistency with the CCAA will also demonstrate consistency with the federal CAA.

Air Pollutant Description and Health Effects

The federal and State ambient air quality standards, the most relevant effects, the properties, and sources of the pollutants are summarized in Table 3.3-4.

[3] United States Environmental Protection Agency (EPA). 2021. NAAQS Table. Website: https://www.epa.gov/criteria-air-pollutants/naaqs-table. Accessed February 16, 2021.

Table 3.3-4: Description of Air Pollutants

Air Pollutant	Averaging Time	California Standard	Federal Standard[a]	Most Relevant Effects from Pollutant Exposure	Properties	Sources
Ozone	1 Hour	0.09 ppm	—	Irritate respiratory system; reduce lung function; breathing pattern changes; reduction of breathing capacity; inflame and damage cells that line the lungs; make lungs more susceptible to infection; aggravate asthma; aggravate other chronic lung diseases; cause permanent lung damage; some immunological changes; increased mortality risk; vegetation and property damage.	Ozone is a photochemical pollutant as it is not emitted directly into the atmosphere but is formed by a complex series of chemical reactions between reactive organic gases (ROG), nitrous oxides (NO_x), and sunlight. Ozone is a regional pollutant that is generated over a large area and is transported and spread by the wind.	Ozone is a secondary pollutant; thus, it is not emitted directly into the lower level of the atmosphere. The primary sources of ozone precursors (ROG and NO_x) are mobile sources (on-road and off-road vehicle exhaust).
	8 Hours	0.070 ppm	0.070 ppm			
Carbon monoxide (CO)	1 Hour	20 ppm	35 ppm	Ranges depending on exposure: slight headaches; nausea; aggravation of angina pectoris (chest pain) and other aspects of coronary heart disease; decreased exercise tolerance in persons with peripheral vascular disease and lung disease; impairment of central nervous system functions; possible increased risk to fetuses; death.	CO is a colorless, odorless, toxic gas. CO is somewhat soluble in water; therefore, rainfall and fog can suppress CO conditions. CO enters the body through the lungs, dissolves in the blood, replaces oxygen as an attachment to hemoglobin, and reduces available oxygen in the blood.	CO is produced by incomplete combustion of carbon-containing fuels (e.g., gasoline, diesel fuel, and biomass). Sources include motor vehicle exhaust, industrial processes (metals processing and chemical manufacturing), residential woodburning, and natural sources.
	8 Hours	9.0 ppm	9 ppm			
Nitrogen dioxide[b] (NO_2)	1 Hour	0.18 ppm	0.100 ppm	Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; contributions to atmospheric discoloration; increased visits to hospital for respiratory illnesses.	During combustion of fossil fuels, oxygen reacts with nitrogen to produce nitrogen oxides—NO_x (NO, NO_2, NO_3, N_2O, N_2O_3, N_2O_4, and N_2O_5). NO_x is a precursor to ozone, PM_{10}, and $PM_{2.5}$ formation. NO_x can react with compounds to form nitric acid and related small particles and result in particulate matter (PM) related health effects.	NO_x is produced in motor vehicle internal combustion engines and fossil fuel-fired electric utility and industrial boilers. Nitrogen dioxide forms quickly from NO_x emissions. NO_2 concentrations near major roads can be 30 to 100 percent higher than those at monitoring stations.
	Annual	0.030 ppm	0.053 ppm			

Air Pollutant	Averaging Time	California Standard	Federal Standard[a]	Most Relevant Effects from Pollutant Exposure	Properties	Sources
Sulfur dioxide[c] (SO_2)	1 Hour	0.25 ppm	0.075 ppm	Bronchoconstriction accompanied by symptoms which may include wheezing, shortness of breath and chest tightness, during exercise or physical activity in persons with asthma. Some population-based studies indicate that the mortality and morbidity effects associated with fine particles show a similar association with ambient sulfur dioxide levels. It is not clear whether the two pollutants act synergistically or one pollutant alone is the predominant factor.	Sulfur dioxide is a colorless, pungent gas. At levels greater than 0.5 ppm, the gas has a strong odor, similar to rotten eggs. Sulfur oxides (SO_x) include sulfur dioxide and sulfur trioxide. Sulfuric acid is formed from sulfur dioxide, which can lead to acid deposition and can harm natural resources and materials. Although sulfur dioxide concentrations have been reduced to levels well below State and federal standards, further reductions are desirable because sulfur dioxide is a precursor to sulfate and PM_{10}.	Human caused sources include fossil fuel combustion, mineral ore processing, and chemical manufacturing. Volcanic emissions are a natural source of sulfur dioxide. The gas can also be produced in the air by dimethylsulfide and hydrogen sulfide. Sulfur dioxide is removed from the air by dissolution in water, chemical reactions, and transfer to soils and ice caps. The sulfur dioxide levels in the State are well below the maximum standards.
	3 Hours	—	0.5 ppm			
	24 Hours	0.04 ppm	0.14 (for certain areas)			
	Annual	—	0.030 ppm (for certain areas)			
Particulate matter (PM_{10})	24 hours	50 µg/m^3	150 µg/m^3	- Short-term exposure (hours/days): irritation of the eyes, nose, throat; coughing; phlegm; chest tightness; shortness of breath; aggravate existing lung disease, causing asthma attacks and acute bronchitis; those with heart disease can suffer heart attacks and arrhythmias. - Long-term exposure: reduced lung function; chronic bronchitis; changes in lung morphology; death.	Suspended particulate matter is a mixture of small particles that consist of dry solid fragments, droplets of water, or solid cores with liquid coatings. The particles vary in shape, size, and composition. PM_{10} refers to particulate matter that is between 2.5 and 10 microns in diameter, (one micron is one-millionth of a meter). $PM_{2.5}$ refers to particulate matter that is 2.5 microns or less in diameter, about one-thirtieth the size of the average human hair.	Stationary sources include fuel or wood combustion for electrical utilities, residential space heating, and industrial processes; construction and demolition; metals, minerals, and petrochemicals; wood products processing; mills and elevators used in agriculture; erosion from tilled lands; waste disposal, and recycling. Mobile or transportation related sources are from vehicle exhaust and road dust. Secondary particles form from reactions in the atmosphere.
	Mean	20 µg/m^3	—			
Particulate matter ($PM_{2.5}$)	24 Hours	—	35 µg/m^3			
	Annual	12 µg/m^3	12.0 µg/m^3			
Visibility reducing particles	8 Hours	See note below[d]				

Air Pollutant	Averaging Time	California Standard	Federal Standard[a]	Most Relevant Effects from Pollutant Exposure	Properties	Sources
Sulfates	24 Hours	25 µg/m^3	—	(a) Decrease in ventilatory function; (b) aggravation of asthmatic symptoms; (c) aggravation of cardio-pulmonary disease; (d) vegetation damage; (e) degradation of visibility; (f) property damage.	The sulfate ion is a polyatomic anion with the empirical formula SO_4^{2-}. Sulfates occur in combination with metal and/or hydrogen ions. Many sulfates are soluble in water.	Sulfates are particulates formed through the photochemical oxidation of sulfur dioxide. In California, the main source of sulfur compounds is combustion of gasoline and diesel fuel.
Lead[e]	30-days	1.5 µg/m^3	—	Lead accumulates in bones, soft tissue, and blood and can affect the kidneys, liver, and nervous system. It can cause impairment of blood formation and nerve conduction, behavior disorders, mental retardation, neurological impairment, learning deficiencies, and low IQs.	Lead is a solid heavy metal that can exist in air pollution as an aerosol particle component. Leaded gasoline was used in motor vehicles until around 1970. Lead concentrations have not exceeded State or federal standards at any monitoring station since 1982.	Lead ore crushing, lead ore smelting, and battery manufacturing are currently the largest sources of lead in the atmosphere in the United States. Other sources include dust from soils contaminated with lead-based paint, solid waste disposal, and crustal physical weathering.
	Quarter	—	1.5 µg/m^3			
	Rolling 3-month average	—	0.15 µg/m^3			
Vinyl chloride[e]	24 Hours	0.01 ppm	—	Short-term exposure to high levels of vinyl chloride in the air causes central nervous system effects, such as dizziness, drowsiness, and headaches. Epidemiological studies of occupationally exposed workers have linked vinyl chloride exposure to development of a rare cancer, liver angiosarcoma, and have suggested a relationship between exposure and lung and brain cancers.	Vinyl chloride, or chloroethene, is a chlorinated hydrocarbon and a colorless gas with a mild, sweet odor. In 1990, ARB identified vinyl chloride as a toxic air contaminant and estimated a cancer unit risk factor.	Most vinyl chloride is used to make polyvinyl chloride plastic and vinyl products, including pipes, wire and cable coatings, and packaging materials. It can be formed when plastics containing these substances are left to decompose in solid waste landfills. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites.
Hydrogen sulfide	1 Hour	0.03 ppm	—	High levels of hydrogen sulfide can cause immediate respiratory arrest. It can irritate the eyes and respiratory tract and cause headache, nausea, vomiting, and cough. Long exposure can cause pulmonary edema.	Hydrogen sulfide (H_2S) is a flammable, colorless, poisonous gas that smells like rotten eggs.	Manure, storage tanks, ponds, anaerobic lagoons, and land application sites are the primary sources of hydrogen sulfide. Anthropogenic sources include the combustion of sulfur containing fuels (oil and coal).

Air Pollutant	Averaging Time	California Standard	Federal Standard[a]	Most Relevant Effects from Pollutant Exposure	Properties	Sources
Volatile organic compounds (VOC)		There are no State or federal standards for VOCs because they are not classified as criteria pollutants.		Although health-based standards have not been established for VOCs, health effects can occur from exposures to high concentrations because of interference with oxygen uptake. In general, concentrations of VOCs are suspected to cause eye, nose, and throat irritation; headaches; loss of coordination; nausea; and damage to the liver, the kidneys, and the central nervous system. Many VOCs have been classified as toxic air contaminants.	ROGs, or VOCs, are defined as any compound of carbon—excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate—that participates in atmospheric photochemical reactions. Although there are slight differences in the definition of ROGs and VOCs, the two terms are often used interchangeably.	Indoor sources of VOCs include paints, solvents, aerosol sprays, cleansers, tobacco smoke, etc. Outdoor sources of VOCs are from combustion and fuel evaporation. A reduction in VOC emissions reduces certain chemical reactions that contribute to the formulation of ozone. VOCs are transformed into organic aerosols in the atmosphere, which contribute to higher PM_{10} and lower visibility.
Benzene		There are no ambient air quality standards for benzene.		Short-term (acute) exposure of high doses from inhalation of benzene may cause dizziness, drowsiness, headaches, eye irritation, skin irritation, and respiratory tract irritation, and at higher levels, loss of consciousness can occur. Long-term (chronic) occupational exposure of high doses has caused blood disorders, leukemia, and lymphatic cancer.	Benzene is VOC. It is a clear or colorless light-yellow, volatile, highly flammable liquid with a gasoline-like odor. The EPA has classified benzene as a "Group A" carcinogen.	Benzene is emitted into the air from fuel evaporation, motor vehicle exhaust, tobacco smoke, and from burning oil and coal. Benzene is used as a solvent for paints, inks, oils, waxes, plastic, and rubber. Benzene occurs naturally in gasoline at one to 2 percent by volume. The primary route of human exposure is through inhalation.
Diesel particulate matter (DPM)		There are no ambient air quality standards for DPM.		Some short-term (acute) effects of DPM exposure include eye, nose, throat, and lung irritation, coughs, headaches, lightheadedness, and nausea. Studies have linked elevated particle levels in the air to increased hospital admissions, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems. Human studies on the carcinogenicity of DPM demonstrate an increased risk of lung cancer, although the increased risk	Diesel PM is a source of $PM_{2.5}$—diesel particles are typically 2.5 microns and smaller. Diesel exhaust is a complex mixture of thousands of particles and gases that is produced when an engine burns diesel fuel. Organic compounds account for 80 percent of the total particulate matter mass, which consists of compounds such as hydrocarbons and their	Diesel exhaust is a major source of ambient particulate matter pollution in urban environments. Typically, the main source of DPM is from combustion of diesel fuel in diesel-powered engines. Such engines are in on-road vehicles such as diesel trucks, off-road construction vehicles, diesel electrical generators, and

Air Pollutant	Averaging Time	California Standard	Federal Standard[a]	Most Relevant Effects from Pollutant Exposure	Properties	Sources
				cannot be clearly attributed to diesel exhaust exposure.	derivatives, and polycyclic aromatic hydrocarbons and their derivatives. Fifteen polycyclic aromatic hydrocarbons are confirmed carcinogens, a number of which are found in diesel exhaust.	various pieces of stationary construction equipment.

Notes:
$\mu g/m^3$ = micrograms per cubic meter
30-day = 30-day average
Annual = Annual Arithmetic Mean
ppm = parts per million (concentration)
Quarter = Calendar quarter

[a] Federal standard refers to the primary national ambient air quality standard, or the levels of air quality necessary, with an adequate margin of safety to protect the public health. All standards listed are primary standards except for 3-Hour SO_2, which is a secondary standard. A secondary standard is the level of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

[b] To attain the 1-hour nitrogen dioxide national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 parts per billion (0.100 ppm).

[c] On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

[d] Visibility reducing particles: In 1989, ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

[e] ARB has identified lead and vinyl chloride as "toxic air contaminants" with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

Source of effects, properties, and sources: South Coast Air Quality Management District (South Coast AQMD) 2007; California Environmental Protection Agency (Cal/EPA) 2002; California Air Resources Board (ARB) 2009; United States Environmental Protection Agency (EPA) 2003, 2009, 2010, 2011, and 2012; National Toxicology Program 2011 and 2011. Source of standards: California Air Resources Board (ARB) 2013.

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Several pollutants listed in Table 3.3-4 are not addressed in this analysis. Visibility reducing particles are not explicitly addressed in this analysis because particulate matter is addressed as PM_{10} and $PM_{2.5}$ and thus evaluated accordingly (see below). In addition, given the nature of the proposed uses, no components of the project would result in vinyl chloride or hydrogen sulfide emissions in any substantial quantity and thus are not addressed further.

Toxic Air Contaminants Health Effects

A toxic air contaminant (TAC) is defined as an air pollutant that may cause or contribute to an increase in mortality or serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations. The California Almanac of Emissions and Air Quality presents the relevant concentration and cancer risk data for the 10 TACs that pose the most substantial health risk in California based on available data. The 10 TACs are acetaldehyde, benzene, 1.3-butadiene, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, perchloroethylene, and diesel particulate matter (DPM).

Some studies indicate that DPM poses the greatest health risk among the TACs listed above. A 10-year research program demonstrated that DPM from diesel-fueled engines is a human carcinogen and that chronic (long-term) inhalation exposure to DPM poses a chronic health risk.[4] In addition to increasing the risk of lung cancer, exposure to diesel exhaust can have other health effects. Diesel exhaust can irritate the eyes, nose, throat, and lungs, and it can cause coughs, headaches, lightheadedness, and nausea. Diesel exhaust is a major source of fine particulate pollution as well, and studies have linked elevated particle levels in the air to increased hospital admissions, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems.

DPM differs from other TACs in that it is not a single substance, but a complex mixture of hundreds of substances. Although DPM is emitted by diesel-fueled, internal combustion engines, the composition of the emissions varies, depending on engine type, operating conditions, fuel composition, lubricating oil, and whether an emission control system is present. Unlike the other TACs, however, no ambient monitoring data are available for DPM because no routine measurement method currently exists. The ARB has made preliminary concentration estimates based on a DPM exposure method. This method uses the ARB emissions inventory's PM_{10} database, ambient PM_{10} monitoring data, and the results from several studies to estimate concentrations of DPM.

Limited data on levels and health risks attributable to the top 10 TACs listed above is available from the ARB as part of its California Almanac of Emissions and Air Quality—2013 Edition.[5] Risks associated with DPM emissions are only provided for the year 2000 and have not been updated in the Almanac. Although recent editions of the Almanac do not provide estimated risk, they do provide emission

[4] California Air Resources Board (ARB). 1998. Initial Statement of Reasons for Rulemaking, Staff Report, Proposed Identification of Diesel Exhaust As A Toxic Air Contaminant. Website: https://ww2.arb.ca.gov/sites/default/files/classic//toxics/dieseltac/staffrpt.pdf. Accessed February 16, 2021.

[5] California Air Resources Board (ARB). 2013. California Almanac of Emissions and Air Quality – 2013 Edition. Website: https://ww2.arb.ca.gov/our-work/programs/resource-center/technical-assistance/air-quality-and-emissions-data/almanac. Accessed February 16, 2021.

inventories for DPM for later years. The 2013 Almanac provides emission inventory trends for DPM from 2000 through 2035. The 2013 Almanac reports that DPM emissions were reduced in the Air Basin from 16 tons per day in 2000 to 11 tons per day in 2010, a 31 percent decrease. DPM emissions in the San Joaquin Valley are projected to decrease to 6 tons per day by 2015, which would represent a 62 percent reduction from year 2000 levels. The ARB predicts a reduction to 3 tons per day by 2035, which would represent an 81 percent reduction from year 2000 levels. Continued implementation of the ARB's Diesel Risk Reduction Plan is expected to provide continued reductions in DPM through 2020 and beyond through regulations on this source.[6]

Asbestos

Asbestos is the name given to a number of naturally occurring fibrous silicate minerals that have been mined for their useful properties such as thermal insulation, chemical and thermal stability, and high tensile strength. The three most common types of asbestos are chrysotile, amosite, and crocidolite. Chrysotile, also known as white asbestos, is the most common type of asbestos found in buildings. Chrysotile makes up approximately 90 to 95 percent of all asbestos contained in buildings in the United States. Exposure to asbestos is a health threat; exposure to asbestos fibers may result in health issues such as lung cancer, mesothelioma (a rare cancer of the thin membranes lining the lungs, chest, and abdominal cavity), and asbestosis (a non-cancerous lung disease that causes scarring of the lungs). Exposure to asbestos can occur during demolition or remodeling of buildings that were constructed prior to the 1977 ban on asbestos for use in buildings. Exposure to naturally occurring asbestos can occur during soil-disturbing activities in areas with deposits present.

Lead

Lead is a naturally occurring element found in small amounts in the earth's crust. While it has some beneficial uses, it can be toxic to human and animals, causing health effects.[7] Lead is known to cause a range of health effects, from behavioral problems and learning disabilities, to seizures and death. Exposure to building materials containing lead, such as lead-based paint, during land use development activities can occur during demolition of older buildings. Children exposed to lead can suffer from a variety of symptoms, including lowered IQ, damage to the brain and nervous system, learning and behavioral difficulties, slowed growth, hearing problems, and headaches. Adults exposed to lead can suffer from reproductive complications, high blood pressure and hypertension, nerve disorders, memory and concentration challenges, and muscle and joint pain.[8]Federal

Air pollutants are regulated at the national, state, and air basin or county level; each agency has a different level of regulatory responsibility. The EPA regulates at the national level. The ARB regulates at the State level. The Valley Air District regulates at the air basin level.

[6] California Air Resources Board (ARB). 2013. California Almanac of Emissions and Air Quality – 2013 Edition. Website: https://ww2.arb.ca.gov/our-work/programs/resource-center/technical-assistance/air-quality-and-emissions-data/almanac. Accessed February 16, 2021.

[7] United States Environmental Protection Agency (EPA). 2021. Learn About Lead. Website: https://www.epa.gov/lead/learn-about-lead. Accessed July 20, 2021.

[8] United States Environmental Protection Agency (EPA). 2021. What are some of the health effects of lead? Website: https://www.epa.gov/lead/what-are-some-health-effects-lead. Accessed July 20, 2021.

The EPA is responsible for national and interstate air pollution issues and policies. The EPA sets national vehicle and stationary source emission standards, oversees approval of all State Implementation Plans, provides research and guidance for air pollution programs, and sets National Ambient Air Quality Standards, also known as the federal standards, or NAAQS, described earlier.

A State Implementation Plan is a document prepared by each state describing existing air quality conditions and measures that will be followed to attain and maintain federal standards. The State Implementation Plan for the State of California is administered by the ARB, which has overall responsibility for statewide air quality maintenance and air pollution prevention. California's State Implementation Plan incorporates individual federal attainment plans for regional air districts—an air district prepares their federal attainment plan, which is sent to ARB to be approved and incorporated into the California State Implementation Plan. Federal attainment plans include the technical foundation for understanding air quality (e.g., emission inventories and air quality monitoring), control measures and strategies, and enforcement mechanisms. The most recent attainment plans for the Valley Air District are the 2007 8-hour Ozone Attainment Plan and the 2012 $PM_{2.5}$ Plan for the 2006 $PM_{2.5}$ standard. The Air Basin is designated as an extreme ozone nonattainment area for the EPA's 2008 8-hour ozone standard of 75 ppb. The EPA Administrator signed the Final Rule revising the 8-hour ozone standard to 70 ppm on October 1, 2015. Adoption of a new standard requires an implementation process that includes making attainment designations and the development of new plans to attain the standard based on each area's designation. The District's Governing Board approved the 2016 Plan for the 2008 8-Hour Ozone Standard on June 16, 2016. The comprehensive strategy in this plan will reduce oxides of nitrogen (NO_x) emissions by over 60 percent between 2012 and 2031 and will bring the San Joaquin Valley into attainment of EPA's 2008 8-hour ozone standard as expeditiously as practicable, no later than December 31, 2031.

Areas designated nonattainment must develop Air Quality Plans (AQPs) and regulations to achieve standards by specified dates, depending on the severity of the exceedances. For much of the country, implementation of federal motor vehicle standards and compliance with federal permitting requirements for industrial sources are adequate to attain air quality standards on schedule. For many areas of California, however, additional State and local regulation is required to achieve the standards. Regulations adopted by California are described below.

State

Low Emission Vehicle Program

The ARB first adopted Low Emission Vehicle (LEV) program standards in 1990. These first LEV standards ran from 1994 through 2003. LEV II regulations, running from 2004 through 2010, represent continuing progress in emission reductions. As the State's passenger vehicle fleet continues to grow and more sport utility vehicles and pickup trucks are used as passenger cars rather than work vehicles, the more stringent LEV II standards were adopted to provide reductions necessary for California to meet federally mandated clean air goals outlined in the 1994 State Implementation Plan. In 2012, the ARB adopted the LEV III amendments to California's LEV regulations. These amendments, also known as the Advanced Clean Car Program, include more stringent emission standards for model years 2017 through 2025 for both criteria pollutants and greenhouse gas (GHG) emissions for new passenger vehicles.

On September 23, 2020, Governor Gavin Newsom issued Executive Order N-79-20 establishing a goal that 100 percent of new passenger cars and trucks sold in California shall be zero-emission by 2035. The Executive Order also sets a goal that, where feasible, all operations include zero-emission medium- and heavy-duty trucks by 2045, and drayage trucks by 2035. Off-road vehicles have a goal to transition to 100 percent zero-emission vehicles by 2035, where feasible.

On-Road Heavy-Duty Vehicle Program

The ARB has adopted standards for emissions from various types of new on-road heavy-duty vehicles. Section 1956.8, Title 13, California Code of Regulations contains California's emission standards for on-road heavy-duty engines and vehicles, and test procedures. The ARB has also adopted programs to reduce emissions from in-use heavy-duty vehicles including the Heavy-Duty Diesel Vehicle Idling Reduction Program, the Heavy-Duty Diesel In-Use Compliance Program, the Public Bus Fleet Rule and Engine Standards, and the School Bus Program and others.

California Air Resources Board Regulation for In-Use Off-Road Diesel Vehicles

On July 26, 2007, the ARB adopted a regulation to reduce DPM and NO_x emissions from in-use (existing) off-road heavy-duty diesel vehicles in California. Such vehicles are used in construction, mining, and industrial operations. The regulation limits idling to no more than five consecutive minutes, requires reporting and labeling, and requires disclosure of the regulation upon vehicle sale. The ARB is enforcing that part of the rule with fines up to $10,000 per day for each vehicle in violation. Performance requirements of the rule are based on a fleet's average NO_x emissions, which can be met by replacing older vehicles with newer, cleaner vehicles or by applying exhaust retrofits. The regulation was amended in 2010 to delay the original timeline of the performance requirements, making the first compliance deadline January 1, 2014, for large fleets (over 5,000 horsepower), 2017 for medium fleets (2,501-5,000 horsepower), and 2019 for small fleets (2,500 horsepower or less).

The latest amendments to the Truck and Bus regulation became effective on December 31, 2014. The amended regulation requires diesel trucks and buses that operate in California to be upgraded to reduce emissions. Newer heavier trucks and buses must meet particulate matter (PM) filter requirements beginning January 1, 2012. Lighter and older heavier trucks must be replaced starting January 1, 2015. By January 1, 2023, nearly all trucks and buses will need to have 2010 model year engines or equivalent.

The regulation applies to nearly all privately and federally owned diesel-fueled trucks and buses and to privately and publicly owned school buses with a gross vehicle weight rating (GVWR) greater than 14,000 pounds. The regulation provides a variety of flexibility options tailored to fleets operating low use vehicles, fleets operating in selected vocations like agricultural and construction, and small fleets of three or fewer trucks.[9]

[9] California Air Resources Board (ARB). 2021. Truck and Bus Regulation. Website: http://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm. Accessed February 16, 2021.

California Air Resources Board Airborne Toxic Control Measure for Asbestos

In July 2001, the ARB approved an Airborne Toxic Control Measure (ATCM) for construction, grading, quarrying and surface mining operations to minimize emissions of naturally occurring asbestos. The regulation requires application of Best Management Practices (BMPs) to control fugitive dust in areas known to have naturally occurring asbestos and requires notification to the local air district prior to commencement of ground-disturbing activities. The measure establishes specific testing, notification and engineering controls prior to grading, quarrying, or surface mining in construction zones where naturally occurring asbestos is located on projects of any size. There are additional notification and engineering controls at work sites larger than one acre in size. These projects require the submittal of a "Dust Mitigation Plan" and approval by the air district prior to the start of a project.

Construction sometimes requires the demolition of existing buildings where construction occurs. Buildings often include materials containing asbestos; demolition is associated with this project and therefore asbestos exposure could occur as a result of this demolition work. In addition, asbestos is also found in a natural state, known as naturally occurring asbestos. Exposure and disturbance of rock and soil that naturally contain asbestos can result in the release of fibers into the air and consequent exposure to the public. Asbestos most commonly occurs in ultramafic rock that has undergone partial or complete alteration to serpentine rock (serpentinite) and often contains chrysotile asbestos. In addition, another form of asbestos, tremolite, can be found associated with ultramafic rock, particularly near faults. Sources of asbestos emissions include unpaved roads or driveways surfaced with ultramafic rock, construction activities in ultramafic rock deposits, or rock quarrying activities where ultramafic rock is present.

The ARB has an ATCM for construction, grading, quarrying, and surface mining operations, requiring the implementation of mitigation measures to minimize emissions of asbestos-laden dust. The measure applies to road construction and maintenance, construction and grading operations, and quarries and surface mines when the activity occurs in an area where naturally occurring asbestos is likely to be found. Areas are subject to the regulation if they are identified on maps published by the Department of Conservation as ultramafic rock units or if the Air Pollution Control Officer or owner/operator has knowledge of the presence of ultramafic rock, serpentine, or naturally occurring asbestos on the site. The measure also applies if ultramafic rock, serpentine, or asbestos is discovered during any operation or activity. Review of the Department of Conservation maps indicates that no ultramafic rock has been found near the City of Tracy.

Diesel Risk Reduction Plan

The ARB's Diesel Risk Reduction Plan has led to the adoption of new State regulatory standards for all new on-road, off-road, and stationary diesel-fueled engines and vehicles to reduce DPM emissions by about 90 percent overall from year 2000 levels. The projected emission benefits associated with the full implementation of this plan, including federal measures, are reductions in DPM emissions and associated cancer risks of 75 percent by 2010, and 85 percent by 2020.[10]

[10] California Air Resources Board (ARB). 2021. Diesel Risk Reduction Plan. Website: https://ww2.arb.ca.gov/our-work/programs/diesel-risk-reduction-plan. Accessed February 16, 2021.

Regional (San Joaquin Valley Air Pollution Control District)

Ozone Plans

The Air Basin is designated nonattainment of State and federal health-based air quality standards for ozone. To meet CAA requirements for the one-hour ozone standard, the Valley Air District adopted an Extreme Ozone Attainment Demonstration Plan in 2004, with an attainment date of 2010. Although the EPA revoked the federal 1-hour ozone standard effective June 15, 2005, and replaced it with an 8-hour standard, the requirement to submit a plan for that standard remained in effect for the San Joaquin Valley.

The planning requirements for the 1-hour plan remain in effect until replaced by a federal 8-hour ozone attainment plan. The EPA approved the 2004 Extreme Ozone Attainment Demonstration Plan, including revisions to the plan, on March 8, 2010, effective April 7, 2010. However, the Air Basin failed to attain the standard in 2010 and was subject to a $29 million CAA penalty. The penalty is being collected through an additional $12 motor vehicle registration surcharge for each passenger vehicle registered in the Air Basin that will be applied to pollution reduction programs in the region. The District also instituted a more robust ozone episodic program to reduce emissions on days with the potential to exceed the ozone standards. On July 18, 2016, the EPA published in the Federal Register a final action determining that the San Joaquin Valley has attained the 1-hour ozone national ambient air quality standard. This determination is based on the most recent 3-year period (2012–2014) of sufficient, quality-assured, and certified data that was available as of the date that environmental review for the proposed project commenced.[11]

The EPA originally classified the Air Basin as serious nonattainment for the 1997 federal 8-hour ozone standard with an attainment date of 2013. On April 30, 2007, the Valley Air District's Governing Board adopted the 2007 Ozone Plan, which contained analysis showing a 2013 attainment target to be infeasible. The 2007 Ozone Plan details the plan for achieving attainment on schedule with an "extreme nonattainment" deadline of 2024. At its adoption of the 2007 Ozone Plan, the Valley Air District also requested a reclassification to extreme nonattainment. The ARB approved the plan in June 2007, and the EPA approved the request for reclassification to extreme nonattainment on April 15, 2010.

The 2007 Ozone Plan contains measures to reduce ozone and particulate matter precursor emissions to bring the Air Basin into attainment with the federal 8-hour ozone standard. The 2007 Ozone Plan calls for a 75 percent reduction of NO_x and a 25 percent reduction of reactive organic gases (ROG).

Figure 1 displays the anticipated NO_x reductions attributed in the 2007 Ozone Plan.[12] The plan, with innovative measures and a "dual path" strategy, assures expeditious attainment of the federal 8-hour ozone standard for all Air Basin residents. The Valley Air District Governing Board adopted the 2007 Ozone Plan on April 30, 2007. The ARB approved the plan on June 14, 2007. The 2007 Ozone Plan

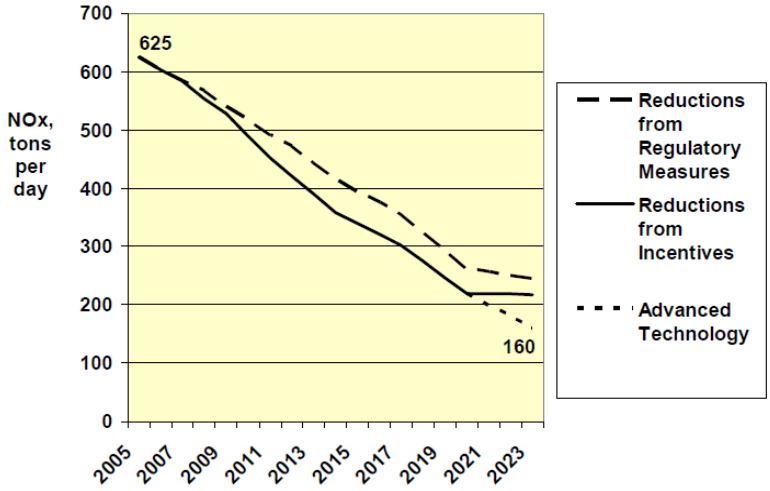
[11] California Air Resources Board (ARB). 2016. Fact Sheet, Final Rule for San Joaquin Valley Determination of Attainment of the 1-Hour Ozone National Ambient Air Quality Standards. June 30. Website: https://www3.epa.gov/region9/air/actions/pdf/ca/sjv/epa-r09-oar-2016-0164-sjv-1hr-o2-determin-attain-factsheet-2016-06-30.pdf. Accessed February 16, 2021.

[12] San Joaquin Valley Air Pollution Control District (Valley Air District). 2007. 2007 8-Hour Ozone Plan. Website: http://www.valleyair.org/air_quality_plans/docs/AQ_Ozone_2007_Adopted/2007_8HourOzone_CompletePlan.pdf. Accessed February 16, 2021.

requires yet to be determined "Advanced Technology" to achieve additional reductions after 2021, in order to attain the standard at all monitoring stations in the Air Basin by 2024 as allowed for areas designated extreme nonattainment by the CAA.

The Air Basin is designated as an extreme ozone nonattainment area for the EPA's 2008 8-hour ozone standard of 75 ppb. The plan to address this standard was developed for the region to attain EPA's 2008 8-hour ozone standard by December 31, 2031.

State ozone standards do not have an attainment deadline but require implementation of all feasible measures to achieve attainment at the earliest date possible. This is achieved through compliance with the federal deadlines and control measure requirements.



Source: San Joaquin Valley Air Pollution Control District (Valley Air District). 2007. 2007 8-Hour Ozone Plan. Website: http://www.valleyair.org/air_quality_plans/docs/AQ_Ozone_2007_Adopted/2007_8HourOzone_CompletePlan.pdf. Accessed February 16, 2021.

Figure 1: San Joaquin Valley NO_x Emissions Forecast

Particulate Matter Plans

The Air Basin was designated nonattainment of State and federal health-based air quality standards for PM_{10}. The Air Basin is also designated nonattainment of State and federal standards for $PM_{2.5}$.

To meet CAA requirements for the PM_{10} standard, the District adopted a PM_{10} Attainment Demonstration Plan (Amended 2003 PM_{10} Plan and 2006 PM_{10} Plan), which had an attainment date of 2010. The Valley Air District adopted the 2007 PM_{10} Maintenance Plan in September 2007 to assure the San Joaquin Valley's continued attainment of the EPA's PM_{10} standard. The EPA designated the San Joaquin Valley as an attainment/maintenance area for PM_{10} on September 25, 2008. Although the San Joaquin Valley has exceeded the standard since then, those days were considered exceptional events that are not considered a violation of the standard for attainment purposes.

The 2008 $PM_{2.5}$ Plan builds upon the comprehensive strategy adopted in the 2007 Ozone Plan to bring the Air Basin into attainment of the 1997 national standards for $PM_{2.5}$. The EPA has identified

NO_x and sulfur dioxide as precursors that must be addressed in AQPs for the 1997 $PM_{2.5}$ standards. The 2008 $PM_{2.5}$ Plan is a continuation of the District's strategy to improve the air quality in the Air Basin. The EPA issued final approval of the 2008 $PM_{2.5}$ Plan on November 9, 2011, which became effective on January 9, 2012. The EPA approved the emissions inventory, the reasonably available control measures/reasonably available control technology demonstration, reasonable further progress demonstration, attainment demonstration and associated air quality modeling, and the transportation conformity motor vehicle emissions budgets. The EPA also granted California's request to extend the attainment deadline for the San Joaquin Valley to April 5, 2015, and approved commitments to measures and reductions by the Valley Air District and the ARB. Finally, it disapproved the State Implementation Plan's contingency provisions and issued a protective finding for transportation conformity determinations.

In December 2012, the Valley Air District adopted the 2012 $PM_{2.5}$ Plan to bring the San Joaquin Valley into attainment of the EPA's 2006 24-hour $PM_{2.5}$ standard of 35 $\mu g/m^3$. The ARB approved the District's 2012 $PM_{2.5}$ Plan for the 2006 standard at a public hearing on January 24, 2013.[13] This plan seeks to bring the San Joaquin Valley into attainment with the standard by 2019, with the expectation that most areas will achieve attainment before that time.

The 2015 Plan for the 1997 $PM_{2.5}$ Standard, approved by the District Governing Board on April 16, 2015, will bring the San Joaquin Valley into attainment of EPA's 1997 $PM_{2.5}$ standard as expeditiously as practicable, but no later than December 31, 2020. However, this did not occur. Therefore, the plan was required to request reclassification to serious nonattainment and to extend the attainment date from 2018 to 2020.[14]

San Joaquin Valley Air Pollution Control District Rules and Regulations

The following Valley Air District rules and regulations are relevant to this analysis:

Rule 4102—Nuisance. The purpose of this rule is to protect the health and safety of the public and applies to any source operation that emits or may emit air contaminants or other materials.

Rule 4601—Architectural Coatings. The purpose of this rule is to limit volatile organic compounds (VOC) emissions from architectural coatings. Emissions are reduced by limits on VOC content and providing requirements on coatings storage, cleanup, and labeling.

Rule 4641—Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations. The purpose of this rule is to limit VOC emissions from asphalt paving and maintenance operations. If asphalt paving will be used, then the paving operations will be subject to Rule 4641.

Regulation VIII—Fugitive PM_{10} Prohibitions. Rules 8011-8081 are designed to reduce PM_{10} emissions (predominantly dust/dirt) generated by human activity, including construction and demolition activities, road construction, bulk materials storage, paved and unpaved roads, carryout

[13] San Joaquin Valley Air Pollution Control District (Valley Air District). 2012. 2012 $PM_{2.5}$ Plan. Website: https://www.valleyair.org/Air_Quality_Plans/PM25Plan2012/CompletedPlanbookmarked.pdf. Accessed February 16, 2021.

[14] San Joaquin Valley Air Pollution Control District (Valley Air District). 2015. 2015 Plan for the 1997 $PM_{2.5}$ Standard. Website: http://www.valleyair.org/air_quality_plans/docs/pm25-2015/2015-pm2.5-plan_bookmarked.pdf. Accessed February 16, 2021.

and trackout, etc. All development projects that involve soil disturbance are subject to at least one provision of the Regulation VIII series of rules.

Rule 9510—Indirect Source Review. This rule reduces the impact of NO_x and PM_{10} emissions from growth within the Air Basin. The rule places application and emission reduction requirements on development projects meeting applicability criteria in order to reduce emissions through on-site mitigation, off-site Valley Air District-administered projects, or a combination of the two. The proposed project must comply with Rule 9510 because it would develop more than 25,000 square feet of light industrial uses.

California Environmental Quality Act

The Valley Air District provides guidance and thresholds for California Environmental Quality Act (CEQA) air quality and GHG analyses. The result of this guidance, as well as State regulations to control air pollution, is an overall improvement in the Air Basin. In particular, the Valley Air District's 2015 GAMAQI states the following:

1. The District's Air Quality Attainment Plans include measures to promote air quality elements in county and city general plans as one of the primary indirect source programs. The general plan is the primary long range planning document used by cities and counties to direct development. Since air districts have no authority over land use decisions, it is up to cities and counties to ensure that their general plans help achieve air quality goals. Section 65302.1 of the California Government Code requires cities and counties in the San Joaquin Valley to amend appropriate elements of their general plans to include data, analysis, comprehensive goals, policies, and feasible implementation strategies to improve air quality in their next housing element revisions.
2. The Air Quality Guidelines for General Plans (AQGGP), adopted by the Valley Air District in 1994 and amended in 2005, is a guidance document containing goals and policy examples that cities and counties may want to incorporate into their General Plans to satisfy Section 65302.1. When adopted in a general plan and implemented, the suggestions in the AQGGP can reduce vehicle trips and miles traveled and improve air quality. The specific suggestions in the AQGGP are voluntary. The Valley Air District strongly encourages cities and counties to use their land use and transportation planning authority to help achieve air quality goals by adopting the suggested policies and programs.

City of Tracy

The City's air quality goals and policies from the Air Quality Element and Circulation Element that are relevant to this analysis are listed below.[15]

[15] City of Tracy. 2011. City of Tracy General Plan. February 1. Website: https://www.ci.tracy.ca.us/documents/2011_General_Plan.pdf. Accessed February 16, 2021.

City of Tracy Air Quality Goals and Policies

Air Quality Element

Goal AQ-1–Improved air quality and reduced greenhouse gas emissions

Objective AQ-1.1 Improve air quality and reduce greenhouse gas emissions through land use planning decisions.

Policies

Policy P1 The City shall promote land use patterns that reduce the number and length of motor vehicle trips.

Objective AQ-1.2 Promote development that minimizes air pollutant and greenhouse gas emissions and their impact on sensitive receptors as a result of indirect and stationary sources.

Policies

Policy P3 Developers shall implement best management practices to reduce air pollutant emissions associated with the construction and operation of development projects.

Policy P4 New development projects should incorporate energy efficient design features for HVAC, lighting systems and insulation that exceed Title 24.

Policy P5 Use of solar water and pool heaters is encouraged.

Policy P6 Installation of solar voltaic panels on new homes and businesses shall be encouraged.

Policy P7 Trees should be planted on the south- and west-facing sides of new buildings or building undergoing substantial renovation in order to reduce energy usage.

Policy P9 New developments shall follow the current requirements of the SJVAPCD [Valley Air District] with respect to woodburning fireplaces and heaters.

Circulation Element

Goal CIR-1: A roadway system that provides access and mobility for all of Tracy's residents and businesses while maintaining the quality of life in the community.

Objective CIR-1.1: Implement a hierarchical street system in which each street serves a specific, primary function and is sensitive to the context of the land uses served.

Policies

Policy P3 The City shall continue to apply traffic mitigation fee programs to fund transportation infrastructure, based on a fair share of facility use.

Policy P6 The Roadway Master Plan update shall identify necessary improvements to various intersections on I-205 and I-580 based on land use designations and with particular attention to Terminal Access Routes in accordance with Surface Transportation Assistance Act of 1982 (STAA).

Objective CIR-1.2: Provide a high level of street connectivity.

Policies

Policy P3 New development shall be designed to provide vehicular, bicycle and pedestrian connections with adjacent developments.

Policy P5 New development shall be designed with a grid or modified grid pattern to facilitate traffic flows and to provide multiple connections to arterial streets.

Goal CIR-3: Safe and convenient bicycle and pedestrian travel as alternative modes of transportation in and around the City.

Objective CIR-3.1: Achieve a comprehensive system of citywide bikeways and pedestrian facilities.

Policies

Policy P6 New development shall include pedestrian and bicycle facilities internal to the development and that connect to citywide facilities, such as parks, schools and recreational corridors, as well as adjacent development and other services.

Policy P7 New development sites for commercial, employment, educational, recreational and park-and-ride land uses shall provide bicycle parking and/or storage facilities.

Economic Development Element

Goal ED-1: A diversified and sustainable local economy.

Objective ED-1.2: Support and encourage a sustainable local economy.

Policies

Policy P1 The City shall encourage businesses that use green practices.

Policy P2 The City shall conduct public education and outreach to support employment opportunities that minimize the need for automobile trips, such as live/work, telecommuting, satellite work centers, and home occupations, in addition to mixed-use development strategies.

Objective ED-6.2: Support infill development of commercial and industrial properties within the city limits.

Policies

Policy P1 The City shall promote the development and redevelopment of City infill areas.

Policy P2 A balanced mix of retail, restaurant, and other services should be encouraged throughout the City.

Northeast Industrial Specific Plan

The City of Tracy adopted the Northeast Industrial Specific Plan on July 17, 2012. The City's air quality objectives, goals, and policies from the Northeast Industrial Specific Plan that are relevant to this analysis are listed below.[16]

Parking and On-site Vehicular Circulation

- Parking, on-site circulation, and loading area standards shall be as required by the provisions of Title 10, Article 26, Off-Street Parking Requirements of the Tracy Municipal Code unless modified below or as part of the Development Review approval.
- Parking lots containing 10-20 spaces may include a maximum of 20 percent of the total number of spaces for compact cars. These spaces shall be designed and marked in accordance with City standards and distributed throughout the lot. Parking areas containing 20 or more spaces may include a maximum of 30 percent of the total number of spaces for compact cars.
- Warehouse/Storage off-street parking standards:
  - One space per 1,000 square feet of the first 20,000 square feet of gross floor area, plus one space per 2,000 square feet of the second 20,000 square feet of gross floor area, plus one space per 4,000 square feet of the remaining square feet of gross floor area.

Environmental Performance Standards

- No use shall be permitted to exist or operate on any lot which:
  - Emits dust, sweepings, dirt, cinders, fumes, odors, radiation, gases and vapors, or discharges liquid or solid wastes or other harmful matter into the atmosphere or any body of water which may, according to the appropriate agency, adversely affect the health and safety persons within the area or the health and safety of persons in adjacent areas or the use of adjacent properties.
  - Produces intense glare or heat, unless such use is performed only within an enclosed or screened area, and then only in such manner that glare, or heat emitted will not be discernible from any exterior lot line.
  - Allows the visible emissions of smoke (outside any building) other than the exhausts emitted by motor vehicles or other transportation facilities or any emissions in violation of any regulation of any public body having jurisdiction. This requirement shall also be applicable to the disposal of trash and waste materials.
- Hazardous Wastes and Water Pollutants
  - Industries regularly using significant quantities of hazardous chemicals as defined by State Law in the course of their operations shall be required to obtain a Conditional Use Permit.

[16] City of Tracy. 2012. City of Tracy Northeast Industrial Specific Plan. July 17. Website: https://www.ci.tracy.ca.us/documents/Northeast_Industrial_Specific_Plan.pdf. Accessed February 16, 2021.

3.3.4 - Project Impacts and Mitigation Measures

Significance Criteria

For purposes of this proposed project, the City, in its discretion, is utilizing CEQA Guidelines' Appendix G Environmental Checklist, to determine whether impacts to air quality are significant environmental effects.

As discussed below, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.

Would the project:

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

b) 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?

c) Expose sensitive receptors to substantial pollutant concentrations?

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Approach to Analysis

While the final determination of whether a project is significant is within the purview of the Lead Agency pursuant to Section 15064(b) of the CEQA Guidelines, the Valley Air District recommends that its quantitative air pollution thresholds be used to determine the significance of project emissions. If the Lead Agency finds that the project would exceed these air pollution thresholds, the project should be considered to have significant air quality impacts. The applicable Valley Air District thresholds and methodologies are contained under each impact statement below, as the City, in its discretion, has determined to utilize these thresholds and methodologies, which are based on scientific and factual data.

This analysis was performed consistent with the guidance and methodologies provided by the Valley Air District's GAMAQI.[17] Based on Valley Air District New Source Review (NSR) offset requirements for stationary sources, the Valley Air District has established thresholds of significance for criteria pollutant emissions, shown in Table 3.3-5. These thresholds apply to the project because these air pollutants would be generated during project construction and operation and constitute criteria pollutants or precursor emissions for criteria pollutants, which are regulated by the federal and State Clean Air Acts.

[17] San Joaquin Valley Air Pollution Control District (Valley Air District). 2015. Guidance for Assessing and Mitigating Air Quality Impact. Website: http://www.valleyair.org/transportation/GAMAQI_12-26-19.pdf Accessed January 28, 2021.

Table 3.3-5: San Joaquin Valley Air Pollution Control District Significance Thresholds

Pollutant	Construction Thresholds (TPY)	Operational Thresholds (TPY)	
		Permitted Equipment and Activities	Non-Permitted Equipment and Activities
ROG	10	10	10
NO_X	10	10	10
CO	100	100	100
SO_X	27	27	27
PM_{10}	15	15	15
$PM_{2.5}$	15	15	15

Notes:
CO = carbon monoxide
NO_X = oxides of nitrogen
PM_{10} = particulate matter with aerodynamic diameter less than 2.5 microns
$PM_{2.5}$ = particulate matter with aerodynamic diameter less than 10 microns
ROG = reactive organic gases
SO_X = oxides of sulfur
TPY = tons per year
Source:
San Joaquin Valley Air Pollution Control District (Valley Air District). 2015. Guidance for Assessing and Mitigating Air Quality Impact. Website: http://www.valleyair.org/transportation/GAMAQI_12-26-19.pdf Accessed January 28, 2021.

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following significance determinations. As noted above, the City, in its discretion, has decided to rely upon the foregoing significance criteria for purposes of this analysis.

Impact Evaluation

Air Quality Management Plan Consistency

Impact AIR-1: **The proposed project could conflict with or obstruct implementation of the applicable air quality plan.**

The CEQA Guidelines indicate that a significant impact would occur if the proposed project would conflict with or obstruct implementation of the applicable AQP. The GAMAQI does not provide specific guidance on analyzing conformity with the AQP. Therefore, for the reasons stated below, this Draft EIR proposes the following criteria for determining project consistency with the current AQPs:

- **Criterion 1:** Does the project support the primary goals of the AQP?
- **Criterion 2:** Does the project include applicable control measures from the AQP?
- **Criterion 3:** Does the project disrupt or hinder implementation of any AQP control measures?

The use of the criteria listed above is a standard approach for CEQA analysis of projects in the Valley Air District's jurisdiction, as well as within other air districts, for the following reasons:

- Significant contribution to existing or new exceedances of the air quality standards would be inconsistent with the goal of attaining the air quality standards.
- AQP emissions inventories and attainment modeling are based on growth assumptions for the area within the air district's jurisdiction.
- AQPs rely on a set of air district-initiated control measures as well as implementation of federal and State measures to reduce emissions within their jurisdictions, with the goal of attaining the air quality standards.

AQPs are plans for reaching attainment of air quality standards. The assumptions, inputs, and control measures are analyzed to determine whether the Air Basin can reach attainment for the ambient air quality standards. To show attainment of the standards, the Valley Air District analyzes the growth projections in the valley, contributing factors in air pollutant emissions and formations, and existing and adopted emissions controls. The Valley Air District then formulates a control strategy to reach attainment that includes both State and Valley Air District regulations and other local programs and measures.

Criterion 1

The first criterion for determining whether the proposed project supports the primary goals of the AQP is if the proposed project would not result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQPs. The development of the AQP is based in part on the land use general plan projections of the various cities and counties that constitute the Air Basin. The City of Tracy General Plan Land Use Element designates the project site as Industrial, which is intended to accommodate flex/office space, manufacturing, warehousing and distribution, and ancillary uses for workers' needs. Therefore, the proposed project, which involves the development of light industrial, warehouse and distribution and related uses is considered consistent with the site's General Plan land use designation and its traffic would be included in volumes projected for analysis of the General Plan.

Nonetheless, as further discussed under Impact AIR-2 and Impact AIR-3, the proposed project could create a localized violation of State or federal air quality standards, significantly contribute to cumulative nonattainment pollutant violations, and expose sensitive receptors to substantial pollutant concentrations. The proposed project would be required to implement the mitigation measures identified under Impact AIR-2; however, because full implementation of the mitigation cannot be guaranteed due to potential technical or financial feasibility, the proposed project's potentially significant impact is conservatively identified as significant and unavoidable. The proposed project is, therefore, considered inconsistent with Criterion 1 after the incorporation of mitigation.

Criterion 2

The AQP contains a number of control measures, which are enforceable requirements through the adoption of rules and regulations. A detailed description of rules and regulations that may apply to this project is provided in Section 3.2.3, Regulatory Framework. The proposed project would be

required to comply with all applicable Valley Air District rules and regulations. Therefore, the proposed project would comply with this criterion through compliance with existing regulations.

Criterion 3

A measure of determining whether the proposed project is consistent with the AQPs is if the proposed project would not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations or delay timely attainment of air quality standards or the interim emission reductions specified in the AQPs. Because of the region's nonattainment status for ozone, $PM_{2.5}$, and PM_{10}, if project-generated emissions of either of the ozone precursor pollutants (ROG and NO_x), PM_{10}, or $PM_{2.5}$ would exceed the Valley Air District's significance thresholds, then the proposed project would be considered to conflict with the attainment plans.

As discussed in Impact AIR-2 below, annual emissions of ROG, NO_x, PM_{10}, and $PM_{2.5}$ associated with the construction of the proposed project (whether phases are constructed sequentially or concurrently) would not exceed the Valley Air District's significance thresholds after incorporation of mitigation. However, emissions of ROG would exceed the Valley Air District's localized significance thresholds if all three project phases were constructed concurrently, even after implementation of identified mitigation. Operation of the proposed project would also have the potential to exceed regional significance thresholds for ROG and NO_X and would have the potential to result in a violation of localized standards after incorporation of mitigation. As shown in Impact AIR-2, the proposed project could also result in CO hotspots that would violate applicable CO standards. Therefore, as the proposed project has the potential to exceed Valley Air District significance thresholds during construction and operation, even after incorporation of the identified mitigation, this impact would remain significant and unavoidable.

Level of Significance Before Mitigation

Potentially Significant Impact

Mitigation Measures

MM AIR-1a **NO_X Reduction Measures**

Prior to the issuance of grading or building permits for each individual development proposal within the project site, the relevant applicant for each development proposal shall provide documentation to the City of Tracy demonstrating the following NO_X reduction measures would be adhered to during construction activities for the relevant development proposal:

- For all construction equipment and vehicles used during project construction that are equal to or greater than 250 horsepower, the contractor shall use construction equipment and vehicles that meet the United States Environmental Protection Agency (EPA) Tier 4 Final engine standards;
- For all construction equipment and vehicles used during project construction that are less than 250 horsepower, the contractor shall use electric construction equipment and vehicles to the extent feasible, with the exception of handheld generator sets; and

- All generator sets utilized during project construction shall be limited to 5 horsepower and shall only be used to power handheld power tools.

The construction contractor shall maintain reasonable records concerning its efforts to comply with this requirement, including equipment lists. Documentation that each relevant applicant provides to the City shall include, but is not limited to, equipment type, equipment manufacturer, equipment identification number, engine model year, engine certification (Tier rating), horsepower, and engine serial number.

MM AIR-1b "Super-Compliant" Architectural Coatings

Prior to the issuance of grading or building permits for each individual development proposal within the project site, the relevant applicant for each development shall provide the City with documentation demonstrating the use of "Super-Compliant" architectural coatings, as defined by the South Coast Air Quality Management District (South Coast AQMD), during construction of the proposed project. "Super-Compliant" architectural coatings, as defined by the South Coast AQMD, are paints which do not exceed 10 grams of reactive organic gas (ROG) per liter of paint.

MM AIR-1c "Zero-VOC" Consumer Products

The consumer products purchased by the building occupant(s) or by the cleaning business contracted by the building occupant(s) for each on-site use shall consist of water-based or "zero volatile organic compound [VOC]" consumer products, to the maximum extent feasible. "Consumer products," as referred to in this mitigation measure, shall include detergents, cleaning compounds, polishes, and floor finishes. "Consumer products," as referred to in this mitigation measure, shall not include parking lot degreasers, architectural coatings, pesticides, or fertilizers.

MM AIR-1d Clean Truck Fleet

Prior to the issuance of the certificate of occupancy for each individual development proposal within the project site, the relevant applicant for the subject individual development proposal shall provide the City with reasonable documentation demonstrating the use of a clean truck fleet that meets the California Air Resources Board's adopted 2013 Optional Low-NO_X Standard of 0.02 gram of nitrogen oxide (NO_X) per brake horsepower-hour for all heavy-duty trucks during operation of the proposed project, to the maximum extent feasible. If the relevant applicant does not own the truck fleet that will be used during operation of the subject individual development, the relevant applicant shall provide the City with reasonable documentation from the truck fleet owner demonstrating that trucks utilized for operation of the subject individual development will meet the California 2013 Optional Low-NO_X Standard, to the maximum extent feasible. If any change occurs where a new truck fleet is utilized during operation of the subject individual development, the relevant applicant shall provide the City with reasonable

documentation demonstrating that the new truck fleet meets the California 2013 Optional Low-NO_X Standard of 0.02 gram per brake horsepower-hour, to the maximum extent feasible.

Level of Significance After Mitigation

Significant and Unavoidable Impact

Cumulative Criteria Pollutant Emissions

Impact AIR-2: The proposed project could result in a cumulatively considerable net increase of any criteria pollutant for which the region is in nonattainment under an applicable federal or State ambient air quality standard.

If an area is in nonattainment for a criteria pollutant, then the background concentration of that pollutant has historically exceeded the ambient air quality standard. It follows that if a project exceeds the regional threshold for that nonattainment pollutant, then it would result in a cumulatively considerable net increase of that pollutant and result in a significant cumulative impact.

The Air Basin is in nonattainment for PM_{10}, $PM_{2.5}$, and ozone. Therefore, if the proposed project exceeds the regional thresholds for PM_{10}, or $PM_{2.5}$, then it would contribute to a cumulatively considerable impact for those pollutants. If the proposed project exceeds the regional threshold for NO_x or ROG (which are precursors to ozone), then it follows that the project would result in a cumulatively considerable contribution and thus result in a significant cumulative impact for ozone.

Regional emissions include those generated from all on-site and off-site activities. Regional significance thresholds have been established by the Valley Air District because emissions from projects in the Air Basin can potentially contribute to the existing emission burden and possibly affect the attainment and maintenance of ambient air quality standards. Projects within the Air Basin with regional emissions that exceed any of the thresholds presented previously are considered to have a significant regional air quality impact.

Construction Emissions

As discussed in Chapter 2, Project Description, the proposed project involves three different applicants, each of which would have individual development proposals for their respective properties within the project site; based on currently available information, it is assumed the proposed project would involve three separate construction phases. For purposes of this analysis, it is assumed that each construction phase would occur over a 12-month period from April through March. Phase 1 would occur from April 2022 through March 2023, Phase 2 would occur from April 2023 through March 2024, and Phase 3 would occur from April 2024 through March 2025. The default construction equipment utilized in the California Emissions Estimator Model (CalEEMod) were adjusted to match the assumed construction schedule presented in Table 3.3-6 and to preserve CalEEMod's default horsepower-hours during construction activities. For more detailed information on assumptions and calculations utilized in the emissions modeling, please see Appendix B. It should be noted, however, that while the construction schedule anticipated for the proposed project assumes that none of the three project phases would overlap, the potential remains for project

phases to be constructed concurrently. Accordingly, for purposes of a conservative analysis, this evaluation also discloses the potential impacts that would occur if phasing overlapped.

Table 3.3-6: Anticipated Construction Schedule

Construction Activity	Start Date	End Date	Days per Week	Total Workdays
Project Phase 1				
Demolition	04/01/2022	04/28/2022	5	20
Site Preparation	04/29/2022	07/07/2022	5	50
Grading	07/08/2022	12/29/2022	5	125
Building Construction	09/01/2022	02/01/2023	5	110
Paving	02/02/2023	03/01/2023	5	20
Architectural Coating	03/02/2023	03/29/2023	5	20
Project Phase 2				
Site Preparation	04/03/2023	06/09/2023	5	50
Grading	06/10/2023	12/29/2023	5	145
Building Construction	09/01/2023	02/01/2024	5	110
Paving	02/02/2024	02/29/2024	5	20
Architectural Coating	03/01/2024	03/28/2024	5	20
Project Phase 3				
Site Preparation	04/01/2024	06/07/2024	5	50
Grading	06/08/2024	12/27/2024	5	145
Building Construction	12/28/2024	01/31/2025	5	110
Paving	02/03/2025	02/28/2025	5	20
Architectural Coating	03/03/2025	03/28/2025	5	20

Notes:
Anticipated construction schedule reflects the schedule as presented by the co-applicants based on information provided by the project applicants. Detailed methodology and calculations related to adjustments to construction equipment lists and other information to reflect the anticipated construction schedule are contained in Appendix B.

As shown in Table 3.3-7, criteria pollutant emissions would exceed Valley Air District thresholds of significance during unmitigated construction for ROG and NO_X during construction of the proposed project. It should be noted that unmitigated construction emissions incorporate the basic dust control measures required under District Rule 8021, which requires that vehicle speeds on unpaved roads and surfaces be reduced to no more than 15 miles per hour and exposed construction areas are watered during earthmoving activities. Because the proposed project would exceed significance thresholds for ROG and NO_X during construction activities, MMs AIR-1a and AIR-1b would be required during construction of the proposed project to reduce ROG and NO_X emissions to below Valley Air District significance thresholds.

As detailed more fully above, Mitigation Measure (MM) AIR-1a would require the use of Tier 4 Final engines for construction equipment equal to or greater than 250 horsepower and electric alternatives for all construction equipment less than 250 horsepower. MM AIR-1a would not preclude the use of generators; however, generators would be limited to no greater than 5 horsepower under MM AIR-1a to ensure that only handheld power tools are powered by generators and no electric alternative for any specific construction equipment which exceeds 250 horsepower is powered by diesel-fueled generators during construction. As detailed more fully above, MM AIR-1b would require the use of "Super-Compliant" architectural coatings during construction of the proposed project. "Super-Compliant" architectural coatings refer to paints which do not exceed 10 grams of ROG per liter of paint. As shown in Table 3.3-8, construction of the proposed project would not exceed the Valley Air District's annual significance threshold with MMs AIR-1a and AIR-1b incorporated.

It should be noted, however, that while the construction schedule assumed for the proposed project illustrates that none of the three project phases would overlap, the potential remains for project phases to be constructed concurrently. Therefore, Table 3.3-7 and Table 3.3-8 each contain a secondary analysis to illustrate the potential emissions generated during the concurrent construction of all three project phases, representing a reasonable worst-case scenario for purposes of a conservative analysis. As demonstrated therein, construction emissions would be mitigated to below the Valley Air District's annual significance thresholds for ROG and NO_X after implementation of identified mitigation, even if all three project phases were constructed concurrently.

Table 3.3-7: Unmitigated Annual Construction Emissions (Sequential and Concurrent Phasing)

Project Phase/Year/Construction Activity	Emissions (Tons)					
	ROG	NO_x	CO	SO_X	PM_{10}	$PM_{2.5}$
Unmitigated Project Phase 1–Construction Year 2022						
Demolition	0.28	0.27	0.21	<0.01	0.02	0.01
Site Preparation	0.13	1.32	0.80	<0.01	0.40	0.24
Grading	0.34	3.53	2.72	0.01	0.53	0.29
Building Construction	1.47	12.85	13.38	0.03	1.27	0.73
2022 Construction Subtotal	*1.97*	*17.98*	*17.11*	*0.04*	*2.22*	*1.27*
Unmitigated Project Phase 1–Construction Year 2023						
Building Construction	0.36	3.06	3.46	0.01	0.32	0.17
Paving	0.10	0.71	1.05	<0.01	0.05	0.04
Architectural Coating	13.04	0.10	0.20	<0.01	0.03	0.01
Phase 1 Construction Total	***15.46***	***21.86***	***21.82***	***0.05***	***2.62***	***1.49***
Unmitigated Project Phase 2–Construction Year 2023						
Site Preparation	0.03	0.28	0.20	<0.01	0.10	0.06

Project Phase/Year/Construction Activity	Emissions (Tons)					
	ROG	NO_x	CO	SO_X	PM_{10}	$PM_{2.5}$
Grading	0.12	1.22	1.04	<0.01	0.21	0.11
Building Construction	0.56	4.84	5.47	0.01	0.51	0.27
2023 Construction Subtotal	*14.22*	*10.21*	*11.41*	*0.02*	*0.81*	*0.44*
Unmitigated Project Phase 2–Construction Year 2024						
Building Construction	0.15	1.27	1.51	<0.01	0.13	0.07
Paving	0.02	0.19	0.30	<0.01	0.01	0.01
Architectural Coating	7.15	0.03	0.06	<0.01	0.01	<0.01
Phase 2 Construction Total	***8.03***	***7.83***	***8.57***	***0.02***	***0.97***	***0.52***
Unmitigated Project Phase 3–Construction Year 2024						
Site Preparation	0.01	0.14	0.09	<0.01	0.05	0.03
Grading	0.06	0.57	0.51	<0.01	0.10	0.05
Building Construction	0.01	0.05	0.06	<0.01	<0.01	<0.01
2024 Construction Subtotal	*7.40*	*2.25*	*2.53*	*0.01*	*0.15*	*0.08*
Unmitigated Project Phase 3–Construction Year 2025						
Building Construction	0.06	0.56	0.68	<0.01	0.48	0.03
Paving	0.01	0.09	0.15	<0.01	0.01	<0.01
Architectural Coating	3.35	0.01	0.03	<0.01	<0.01	<0.01
Phase 3 Construction Total	***3.50***	***1.42***	***1.52***	***<0.01***	***0.21***	***0.11***
2025 Construction Subtotal	*3.42*	*0.66*	*0.86*	*<0.01*	*0.06*	*0.03*
Maximum 12-Month Period (Total for Sequential Phases)	**15.46**	**21.86**	**21.82**	**0.05**	**2.62**	**1.49**
Valley Air District Annual Thresholds	10	10	100	27	15	15
Do Construction Emissions Exceed Thresholds?	**Yes**	**Yes**	**No**	**No**	**No**	**No**
Unmitigated Project Construction (All Phases Concurrent)						
Concurrent Construction 12-Month Period (All Three Project Phases Combined)	**27.01**	**31.11**	**31.91**	**0.07**	**3.80**	**2.12**
Valley Air District Annual Thresholds	10	10	100	27	15	15
Do Construction Emissions Exceed Thresholds?	**Yes**	**Yes**	**No**	**No**	**No**	**No**

Project Phase/Year/Construction Activity	Emissions (Tons)					
	ROG	NO_x	CO	SO_X	PM_{10}	$PM_{2.5}$
Notes: CO = carbon monoxide NO_X = oxides of nitrogen PM_{10} = particulate matter with aerodynamic diameter less than 2.5 microns $PM_{2.5}$ = particulate matter with aerodynamic diameter less than 10 microns ROG = reactive organic gases SO_X = oxides of sulfur Each construction year subtotal includes emissions from all activities occurring within that calendar irrespective of which project phase that activity occurs. Totals may not add up due to rounding. CalEEMod Output files are contained in Appendix B.						

Table 3.3-8: Mitigated Annual Construction Emissions (Sequential and Concurrent Phasing)

Project Phase/Year/Construction Activity	Emissions (Tons)					
	ROG	NO_x	CO	SO_X	PM_{10}	$PM_{2.5}$
Mitigated Project Phase 1–Construction Year 2022						
Demolition	<0.01	0.02	0.01	<0.01	0.01	<0.01
Site Preparation	<0.01	<0.01	0.02	<0.01	0.33	0.18
Grading	0.05	0.15	1.32	0.01	0.39	0.16
Building Construction	0.47	3.01	3.17	0.02	0.75	0.24
2022 Construction Subtotal	*0.52*	*3.18*	*4.51*	*0.03*	*1.48*	*0.58*
Mitigated Project Phase 1–Construction Year 2023						
Building Construction	0.11	0.68	0.78	0.01	0.20	0.06
Paving	0.03	<0.01	0.03	<0.01	0.01	<0.01
Architectural Coating	0.88	0.01	0.07	<0.01	0.03	0.01
Phase 1 Construction Total	***1.54***	***3.87***	***5.39***	***0.04***	***1.72***	***0.65***
Mitigated Project Phase 2–Construction Year 2023						
Site Preparation	<0.01	<0.01	0.01	<0.01	0.09	0.05
Grading	0.02	0.06	0.53	<0.01	0.16	0.06
Building Construction	0.13	0.75	1.42	0.01	0.31	0.09
2023 Construction Subtotal	*1.16*	*1.50*	*2.84*	*0.02*	*0.79*	*0.26*
Mitigated Project Phase 2–Construction Year 2024						
Building Construction	0.03	0.21	0.38	<0.01	0.09	0.02
Paving	<0.01	<0.01	0.01	<0.01	<0.01	<0.01
Architectural Coating	0.48	<0.01	0.03	<0.01	0.01	<0.01
Phase 2 Construction Total	***0.66***	***1.02***	***2.38***	***0.02***	***0.65***	***0.22***

Project Phase/Year/Construction Activity	Emissions (Tons)					
	ROG	NO_x	CO	SO_X	PM_{10}	$PM_{2.5}$
Mitigated Project Phase 3–Construction Year 2024						
Site Preparation	<0.01	<0.01	<0.01	<0.01	0.04	0.02
Grading	0.01	0.03	0.26	<0.01	0.08	0.03
Building Construction	<0.01	0.01	0.01	<0.01	<0.01	<0.01
2024 Construction Subtotal	*0.52*	*0.25*	*2.53*	*0.01*	*0.22*	*0.07*
Mitigated Project Phase 3–Construction Year 2025						
Building Construction	0.01	0.09	0.15	<0.01	0.03	0.01
Paving	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Architectural Coating	0.22	<0.01	0.01	<0.01	<0.01	<0.01
Phase 3 Construction Total	***0.25***	***0.13***	***0.44***	***<0.01***	***0.15***	***0.06***
2025 Construction Subtotal	*0.24*	*0.09*	*0.16*	*<0.01*	*0.03*	*0.01*
Maximum 12-Month Period (Total for Sequential Phases)	**1.54**	**3.87**	**5.39**	**0.04**	**1.72**	**0.65**
Valley Air District Annual Thresholds	10	10	100	27	15	15
Do Mitigated Construction Emissions Exceed Thresholds?	**No**	**No**	**No**	**No**	**No**	**No**
Mitigated Project Construction (All Phases)						
Concurrent Construction 12-Month Period (All Three Project Phases Combined)	**2.45**	**5.02**	**10.04**	**0.06**	**2.52**	**0.93**
Valley Air District Annual Thresholds	10	10	100	27	15	15
Do Construction Emissions Exceed Thresholds?	**No**	**No**	**No**	**No**	**No**	**No**

Notes:
CO = carbon monoxide
NO_X = oxides of nitrogen
PM_{10} = particulate matter with aerodynamic diameter less than 2.5 microns
$PM_{2.5}$ = particulate matter with aerodynamic diameter less than 10 microns
ROG = reactive organic gases
SO_X = oxides of sulfur
Each construction year subtotal includes emissions from all activities occurring within that calendar irrespective of which project phase that activity occurs. Totals may not add up due to rounding. CalEEMod Output files are contained in Appendix B.

Construction Ambient Air Quality Analysis

Valley Air District Rule 2201 requires that an Ambient Air Quality Analysis (AAQA) be conducted for a project when that project's maximum daily emissions exceed 100 pounds for any single criteria or precursor pollutant after incorporation of all mitigation.

Mitigated project construction emissions are presented in Table 3.3-9. It should be noted that if project construction moves to later years, resulting emissions are anticipated to reduce because equipment efficiency and fuel content standards generally improve with each year and construction fleet operators periodically replace old equipment with new, more efficent equipment.

It should also be noted, however, that while the construction schedule anticipated for the proposed project assumes that none of the three project phases would overlap, the potential remains for project phases to be constructed concurrently. Therefore, for purposes of a conservative analysis, Table 3.3-9 contains a secondary analysis to illustrate the potential emissions generated during the concurrent construction of all three project phases, representing a reasonable worst-case scenario.

As shown in Table 3.3-9, after the incorporation of MMs AIR-1a and AIR-1b, construction of the proposed project would not exceed the Valley Air District's daily emission screening levels for an AAQA, pursuant to District Rule 2201, assuming that none of the project phases were to be constructed concurrently.

However, as demonstrated in Table 3.3-9, emissions of ROG and CO would exceed the Valley Air District's significance thresholds after implementation of identified mitigation if all three project phases were constructed concurrently. As such, this impact would remain significant and unavoidable after implementation of identified mitigation.

Table 3.3-9: Mitigated Daily Construction Emissions (Sequential and Concurrent Phasing)

Year	Emissions (Pounds)					
	ROG	NO_x	CO	SO_X	PM_{10}	$PM_{2.5}$
Mitigated Project Phase 1						
Construction Year 2022	12.25	71.81	99.34	0.67	24.06	8.22
Construction Year 2023	87.87	59.11	72.80	0.56	17.60	5.45
Maximum Phase 1 Daily Construction Emissions	**87.87**	**71.81**	**99.34**	**0.67**	**24.06**	**8.22**
Valley Air District Daily Thresholds	100	100	100	100	100	100
Do Construction Emissions Exceed Thresholds?	**No**	**No**	**No**	**No**	**No**	**No**
Mitigated Project Phase 2						
Construction Year 2023	3.43	18.41	42.60	0.27	9.51	2.92
Construction Year 2024	48.04	17.27	33.76	0.24	7.32	2.04
Maximum Phase 1 Daily Construction Emissions	**48.04**	**18.41**	**42.60**	**0.27**	**9.51**	**2.92**
Valley Air District Daily Thresholds	100	100	100	100	100	100
Do Construction Emissions Exceed Thresholds?	**No**	**No**	**No**	**No**	**No**	**No**

Year	Emissions (Pounds)					
	ROG	NO_x	CO	SO_X	PM_{10}	$PM_{2.5}$
Mitigated Project Phase 3						
Construction Year 2024	1.13	8.20	13.98	0.11	2.49	0.90
Construction Year 2025	22.43	8.09	13.53	0.11	2.49	0.71
Maximum Daily Construction Emissions (Total for Sequenced Phases)	**22.43**	**8.20**	**13.98**	**0.11**	**2.49**	**0.90**
Valley Air District Daily Thresholds	100	100	100	100	100	100
Do Construction Emissions Exceed Thresholds?	**No**	**No**	**No**	**No**	**No**	**No**
Mitigated Project Construction (All Phases)						
Concurrent Construction (Maximum for All Phases Combined)	**158.34**	**98.42**	**155.92**	**1.05**	**36.06**	**12.04**
Valley Air District Daily Thresholds	100	100	100	100	100	100
Do Construction Emissions Exceed Thresholds?	**Yes**	**No**	**Yes**	**No**	**No**	**No**

Notes:
CO = carbon monoxide
NO_X = oxides of nitrogen
PM_{10} = particulate matter with aerodynamic diameter less than 2.5 microns
$PM_{2.5}$ = particulate matter with aerodynamic diameter less than 10 microns
ROG = reactive organic gases
SO_X = oxides of sulfur
Daily maximum emissions are drawn from the maximum values between the Winter and Summer construction model results. Totals may not add up due to rounding. CalEEMod Output files are contained in Appendix B.

Operational Emissions

Operation of the proposed project at full buildout would involve the operation of light industrial, warehouse and distribution and relates uses on the project site. As shown in Chapter 2, Project Description, Table 2-2, Proposed Development Summary, the applicant for the Tracy Alliance parcels (Phase I) would develop approximately 1,849,500 square feet of warehouse uses and ancillary office space and related improvements. The applicant for the Suvik Farms parcels (Phase 2) would develop an estimated 1,023,660 square feet of light industrial uses and related improvements. The applicant for the Zuriakat parcel (Phase 3) would develop an estimated 479,160 square feet of light industrial uses and related improvements. Specific development plans for Phase 2 (Suvik Farms parcels) and Phase 3 (Zuriakat parcel) are not specified at this time. For the purposes of this analysis, buildout of these parcels was estimated at the maximum allowable density per acre identified in the Northeast Industrial Specific Plan.

Kimley-Horn and Associates produced a Transportation Impact Analysis (TIA) for the proposed project that analyzes the trip generation rates for the proposed project. As contained therein and shown in Table 3.3-10, Phase I (Tracy Alliance parcels) would generate an estimated 1,775 daily passenger vehicle trips and 836 daily truck trips; Phase 2 (Suvik Farms parcels) would generate an

estimated 974 daily passenger vehicle trips and 459 daily truck trips; and Phase 3 (Zuriakat parcel) would generate an estimated 456 daily passenger vehicle trips and 215 daily truck trips.

Table 3.3-10: Operational Vehicle Trips

Source	Daily Vehicle Trips
Project Phase 1	
Passenger Vehicles	1,775
Heavy-Duty Trucks	836
Total Phase 1 Vehicle Trips	**2,611**
Project Phase 2	
Passenger Vehicles	974
Heavy-Duty Trucks	459
Total Phase 2 Vehicle Trips	**1,433**
Project Phase 3	
Passenger Vehicles	456
Heavy-Duty Trucks	215
Total Phase 3 Vehicle Trips	**671**
Notes: Fleet mix adjustment calculations can be found in Appendix B. Source: Kimley-Horn and Associates, Inc. 2021. Tracy Alliance and Northeast Area Annexation Transportation Impact Analysis – Draft. February.	

As discussed in Chapter 2, Project Description, the proposed project would involve the removal of existing structures, including two residences and nine agricultural outbuildings for equipment storage and maintenance. In order to demonstrate the net increase in emissions generated by the proposed project during operation beyond what is currently generated by existing land uses, the existing land uses were modeled. Table 3.3-11 displays the annual operational emissions that the existing land uses are anticipated to generate.

Table 3.3-11: Existing Annual Operational Emissions

Emission Source	Emissions (Tons)					
	ROG	NO_x	CO	SO_X	PM_{10}	$PM_{2.5}$
Existing Operations						
Area	0.14	<0.01	0.02	<0.01	<0.01	<0.01
Energy	<0.01	0.01	0.01	<0.01	<0.01	<0.01
Mobile	0.02	0.11	0.20	<0.01	0.07	0.02
Existing Operations Total	***0.15***	***0.12***	***0.22***	***<0.01***	***0.07***	***0.02***

Emission Source	Emissions (Tons)					
	ROG	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Notes: CO = carbon monoxide NO_X = oxides of nitrogen PM_{10} = particulate matter with aerodynamic diameter less than 2.5 microns $PM_{2.5}$ = particulate matter with aerodynamic diameter less than 10 microns ROG = reactive organic gases SO_X = oxides of sulfur Source: CalEEMod Output files and detailed modeling methodology are contained in Appendix B.						

As shown in Table 3.3-12, unmitigated operational emissions would exceed Valley Air District thresholds of significance for ROG and NO_X. Therefore, MMs AIR-1c and AIR-1d would be required to mitigate operational emissions to below Valley Air District thresholds.

Table 3.3-12: Unmitigated Annual Operational Emissions

Emission Source	Emissions (Tons)					
	ROG	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Existing Operations						
Existing Operations Total	*0.15*	*0.12*	*0.22*	*<0.01*	*0.07*	*0.02*
Project Phase 1–Operational Year 2023						
Area	8.58	<0.01	0.03	<0.01	<0.01	<0.01
Energy	0.06	0.58	0.49	<0.01	0.04	0.04
Mobile–Trucks	0.49	18.92	3.36	0.07	1.50	0.43
Mobile–Autos	0.38	0.64	6.40	0.02	2.72	0.73
Phase 1 Operations Total	*9.52*	*20.14*	*10.28*	*0.10*	*4.27*	*1.21*
Phase 1 Operations Net Total (Subtracting Existing Emissions)	**9.36**	**20.02**	**10.06**	**0.10**	**4.20**	**1.19**
Project Phase 2–Operational Year 2024						
Area	4.72	0.00	0.01	0.00	0.00	0.00
Energy	0.03	0.31	0.26	0.00	0.02	0.02
Mobile–Trucks	0.27	10.21	1.82	0.04	0.82	0.23
Mobile–Autos	0.19	0.31	3.24	0.01	1.49	0.40
Phase 2 Operations Total	**5.21**	**10.83**	**5.32**	**0.05**	**2.34**	**0.66**
Project Phase 3–Operational Year 2025						
Area	2.21	0.00	0.01	0.00	0.00	0.00
Energy	0.02	0.14	0.12	0.00	0.01	0.01
Mobile–Trucks	0.12	4.70	0.84	0.02	0.39	0.11

Emission Source	Emissions (Tons)					
	ROG	NO_x	CO	SO_X	PM_{10}	$PM_{2.5}$
Mobile–Autos	0.08	0.13	1.41	0.01	0.70	0.19
Phase 1 Operations Total	**2.43**	**4.98**	**2.38**	**0.02**	**1.10**	**0.31**
Full Project–Operational Year 2025						
Full Project Buildout (All Phases)	***17.01***	***35.83***	***17.77***	***0.18***	***7.63***	***2.16***
Valley Air District Annual Thresholds	10	10	100	27	15	15
Do Operational Emissions Exceed Thresholds?	**Yes**	**Yes**	**No**	**No**	**No**	**No**

Notes:
CO = carbon monoxide
NO_X = oxides of nitrogen
PM_{10} = particulate matter with aerodynamic diameter less than 2.5 microns
$PM_{2.5}$ = particulate matter with aerodynamic diameter less than 10 microns
ROG = reactive organic gases
SO_X = oxides of sulfur
Totals may not add up due to rounding.
Source:
CalEEMod Output files are contained in Appendix B.

Table 3.3-13: Project Phase Share of Unmitigated Operational Emissions

Project Phase	Emissions (Percent of Total)					
	ROG	NO_x	CO	SO_X	PM_{10}	$PM_{2.5}$
Project Phase 1	55%	56%	57%	56%	55%	55%
Project Phase 2	31%	30%	30%	30%	31%	31%
Project Phase 3	14%	14%	13%	14%	14%	14%

Notes:
CO = carbon monoxide
NO_X = oxides of nitrogen
PM_{10} = particulate matter with aerodynamic diameter less than 2.5 microns
$PM_{2.5}$ = particulate matter with aerodynamic diameter less than 10 microns
ROG = reactive organic gases
SO_X = oxides of sulfur

Incorporation of MM AIR-1d in operation of the proposed project would reduce annual NO_X emissions. As detailed more fully above, MM AIR-1d would require all phases of the proposed project to use a "clean truck fleet" that meets a performance standard of 0.02 gram of NO_X per brake horsepower-hour for all heavy-heavy-duty (HHD) trucks during project operation. In addition, as detailed more fully above, MM AIR-1c would require the use of consumer products that contain zero VOCs during operation of the proposed project. "Consumer products," as referred to in this mitigation measure, would include detergents, cleaning compounds, polishes, and floor finishes. "Consumer products," as referred to in this mitigation measure, would not include parking lot

degreasers, architectural coatings, and fertilizers. MM AIR-1d would require all phases of the proposed project to use a "clean truck fleet" that meets or exceeds a performance standard of 0.02 gram of NO_X per brake horsepower-hour for all HHD trucks during project operation.

It should be noted that, as detailed more fully above, MM AIR-1d, which would require the use of a HHD truck fleet that meets the 2013 Optional Low-NO_X Standard of 0.02 gram of NO_X per brake horsepower-hour, would represent an approximately 90 percent reduction in NO_X emissions from the current heavy-duty truck NO_X standard of 0.2 gram of NO_X per brake horsepower-hour.[18]

Nonetheless, the full implementation of MM AIR-1c and MM AIR-1d cannot be guaranteed during project operation; therefore, the emission estimates provided in Table 3.3-14 demonstrate a reasonable worst-case scenario for project operation after incorporation of identified mitigation. Because the operational emissions shown therein would exceed the Valley Air District's significnace thresholds for ROG and NO_X and this impact would remain significant and unavoidable.

Operational Ambient Air Quality Analysis

Valley Air District Rule 2201 requires that an AAQA be conducted for a project when that project's maximum daily emissions exceed 100 pounds for any single criteria or precursor pollutant after incorporation of all mitigation. As shown in Table 3.3-14, due to the uncertainty of full implementation of MM AIR-1c and MM AIR-1d, the potential emission reductions resulting from MM AIR-1c and MM AIR-1d are not considered in the proposed project's mitigated operational emissions. As such, maximum daily operational emissions generated by all phases of the proposed project would exceed the Valley Air District's screening threshold for an AAQA for NO_X emissions. As a result, this impact would remain significant and unavoidable after mitigation is incorporated.

Table 3.3-14: Mitigated Daily Operational Emissions

Metric	Emissions					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Total Tons Per Year	17.01	35.83	17.77	0.18	7.63	2.16
Total Pounds Per Year	34,020	71,660	35,533	357	15,261	4,312
Pounds Per Day	**93.21**	**196.33**	**97.35**	**0.98**	**41.81**	**11.81**
Valley Air District Daily Thresholds	100	100	100	100	100	100
Do Daily Emissions Exceed Thresholds?	**No**	**Yes**	**No**	**No**	**No**	**No**

Notes:
CO = carbon monoxide
NO_X = oxides of nitrogen
PM_{10} = particulate matter with aerodynamic diameter less than 2.5 microns
$PM_{2.5}$ = particulate matter with aerodynamic diameter less than 10 microns
ROG = reactive organic gases
SO_X = oxides of sulfur
Totals may not add up due to rounding. CalEEMod Output files are contained in Appendix B.

[18] California Air Resources Board (ARB). 2021. Heavy-Duty Low NOx. Website: https://ww2.arb.ca.gov/our-work/programs/heavy-duty-low-nox/about. Accessed February 19, 2021.

Impact Summary

Regional emissions generated by the proposed project would exceed applicable thresholds after compliance with all rules, regulations, and mitigation measures during operation. Localized operational emissions would also present a potentially significant impact after incorporation of identified mitigation. This impact would be significant and unavoidable.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Implement MMs AIR-1a to AIR-1d

Level of Significance After Mitigation

Significant and unavoidable impact.

Sensitive Receptors Exposure to Toxic Air Contaminant Concentrations

Impact AIR-3:	**The proposed project could expose sensitive receptors to substantial pollutant concentrations.**

Sensitive Receptors

Those who are sensitive to air pollution include children, the elderly, and persons with preexisting respiratory or cardiovascular illness. The Valley Air District considers a sensitive receptor to be a location that houses or attracts children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants. Examples of sensitive receptors include hospitals, residences, convalescent facilities, and schools.

The closest sensitive receptors to the project site are single-family residences and Banta Elementary School. The closest sensitive receptors to the project site are located at the following distances:

- Residences as close as 145 feet west of the project site across Paradise Road;
- Residences immediately adjacent to the project site to the east along Grant Line Road;
- Residences as close as 120 feet south of the project site across Grant Line Road;
- Residences as close as 60 feet north of the project site across California Avenue; and
- Banta Elementary School approximately 1,500 feet to the east at its closest outside area.

It should be noted that while the above receptors represent the closest sensitive receptors to the proposed project, the Maximally Impacted Sensitive Receptor (MIR), as will be discussed under the "Construction: Toxic Air Contaminant" discussion below, during each construction phase of the proposed project may be different. The MIR during pollutant-generating activity is influenced by the distance of that receptor to the pollutant source(s), the amount and type of pollutants generated by each source, the topography and direction of the MIR as it relates to the pollutant source(s), and the prevailing meteorological conditions. Therefore, the closest sensitive receptor and the MIR may not be the same.

Construction

Construction: Reactive Organic Gas

ROG generated during construction activities are primarily emitted during the application of architectural coatings (painting). The amount emitted is dependent on the amount of ROG (or VOC) in the paint. ROG emissions are typically an indoor air quality health hazard concern rather than an outdoor air quality health hazard concern. In addition, construction of the proposed project would incorporate MM AIR-1b, which would require the use of "super-compliance" architectural coatings, reducing potential health impacts from ROG exposure. Therefore, exposure to ROGs during architectural coatings would be a less than significant health impact.

ROG generated during construction activities are also emitted during the pouring and curing of asphalt. Three types of asphalt are typically used in paving: asphalt cements, cutback asphalts, and emulsified asphalts. However, District Rule 4641 prohibits the use of the following types of asphalt: rapid cure cutback asphalt; medium cure cutback asphalt; slow cure asphalt that contains more than 0.5 percent of organic compounds that evaporate at 500 degrees Fahrenheit (°F) or lower; and emulsified asphalt containing organic compounds, in excess of 3 percent by volume, which evaporate at 500°F or lower. An exception to this is medium cure asphalt when the National Weather Service official forecast of the high temperature for the 24-hour period following application is below 50°F.

The acute (short-term) health effects from worker direct exposure to asphalt fumes include irritation of the eyes, nose, and throat. Other effects include respiratory tract symptoms and pulmonary function changes. The studies were based on occupational exposure of fumes. Residents are not in the immediate vicinity of the fumes because asphalt laying would principally occur within the interior of the project site and subsequent fumes would dissipate as they are emitted; therefore, they would not be subjected to concentrations high enough to evoke a negative response. In addition, the restrictions that are placed on asphalt in the San Joaquin Valley would serve to further reduce ROG emissions from asphalt and exposure. The impact to nearby sensitive receptors from ROG generation during construction would be less than significant.

Construction: NO_x, PM_{10}, $PM_{2.5}$, and CO

As discussed in Impact AIR-2, after incorporation of identified mitigation, emissions of CO generated during project construction have the potential to exceed the Valley Air District maximum daily emission AAQA screening threshold if all three project phases were constructed concurrently. Therefore, emissions during construction could exceed the significance thresholds (in the case of all three phases being constructed concurrently) even after incorporation of mitigation and could result in concentrations that would exceed ambient standards, contribute substantially to an existing exceedance of an ambient air quality standard, or expose sensitive receptors to substantial pollutant concentrations.

Construction: Toxic Air Contaminants

Construction of the proposed project would involve the use of diesel-fueled vehicles and equipment that emit DPM, which has been identified by the ARB as a TAC. The Valley Air District's latest threshold of significance for TAC emissions is an increase in cancer risk for the maximally exposed

individual of 20 in one million persons. Major sources of DPM include off-road construction equipment and heavy-duty delivery truck and worker activities. For purposes of this analysis, DPM is represented as exhaust emissions of PM_{10}.

Construction DPM emissions (PM_{10} exhaust) were estimated using CalEEMod, Version 2016.3.2, as presented under Impact AIR-2. On-site and off-site PM_{10} exhaust emissions utilized in the air dispersion modeling for this analysis are provided in Table 3.3-15. As presented in Table 3.3-6, the proposed project's construction is anticipated to occur from April 2022 through March 2025. Construction emissions were reasonably assumed to be distributed over the project site with a working schedule of 8 hours per day, 7 days per week. If all construction phases were to occur concurrently, construction emissions would consist of the combined emissions disclosed here; however, the exposure duration would be shorter than what was analyzed. Table 3.3-15 summarizes the mitigated emission rates of DPM during the construction of the proposed project, incorporating dust control measures required by District Rule 8021 and implementation of MM AIR-1a and MM AIR-1b. As illustrated in Table 3.3-16, unmitigated project construction would cancer risks experienced by nearby residents which exceed the Valley Air District's significance threshold of 20 cancer cases per 1 million people. As such, mitigation would be necessary to reduce impacts to nearby residents to less than significant levels.

Table 3.3-15: Unmitigated and Mitigated Construction DPM Emissions by Phase

Construction Scenario	On-Site DPM (as PM_{10} Exhaust)	Off-Site DPM[1] (as PM_{10} Exhaust)
Phase 1 (Tracy Alliance Parcels)		
Unmitigated Construction[2]	3.882E-02	4.830E-05
Mitigated Construction[2]	4.030E-03	4.830E-05
Phase 2 (Suvik Farms Parcels)		
Unmitigated Construction[2]	1.321E-02	1.995E-05
Mitigated Construction[2]	1.954E-04	1.995E-05
Phase 3 (Zuriakat Parcel)		
Unmitigated Construction[2]	2.299E-03	2.139E-06
Mitigated Construction[2]	4.986E-05	2.139E-06

Notes:
DPM = diesel particulate matter
PM_{10} = particulate matter with aerodynamic diameter less than 2.5 microns
[1] The off-site emissions were estimated over construction vehicle travel routes within two kilometers of the project site, or approximately 6,562 feet; see Appendix B for calculations.
[2] In scientific notation, the letter E is used to mean "10 to the power of."
Source: Appendix B; CalEEMod Output Files.

To assess impacts to off-site sensitive receptors, receptor locations within the American Meteorological Society/EPA Regulatory Model (AERMOD) model were placed at locations of existing

residences and the nearby school, all of which are located within a 2-kilometer radius of the project site boundary.

The Valley Air District has developed a set of guidelines for estimating cancer risks utilizing the Hot Spots Analysis and Reporting Program (HARP2), Version 19044, risk assessment stand-alone tool. Table 3.3-16 provides the estimated health and hazard impacts from unmitigated construction emissions at the MIRs for each construction phase and sensitive receptor age group using HARP2. The MIRs for Phase 1 construction were a single-family residence located approximately 1,025 feet east of the project site and Banta Elementary School approximately 2,495 feet east of the project site. The MIRs for Phase 2 construction were a single-family residence located approximately 35 feet east of the project site and Banta Elementary School approximately 1,500 feet east of the project site. The MIRs for Phase 3 construction were a single-family residence located approximately 550 feet southeast of the project site and Banta Elementary School approximately 2,150 feet southeast of the project site. As shown in Table 3.3-16, unmitigated construction emissions with sequential phasing would exceed the Valley Air District's cancer risk health threshold.

Table 3.3-16: Estimated Health Risks and Hazards—Unmitigated Construction (Sequential Phasing)

Risk Scenario	Annual Average PM_{10} Exhaust Concentration ($\mu g/m^3$)	Cancer Risk (Risk Per One Million)	Chronic Non-Cancer Hazard Index[1]
Phase 1 (Tracy Alliance Parcels)			
Residential MIR	5.775E-02	10.27	0.01
School MIR	2.239E-02	0.87	< 0.01
Phase 2 (Suvik Farms Parcels)			
Residential MIR	1.811E-01	32.20	0.04
School MIR	1.637E-02	0.64	< 0.01
Phase 3 (Zuriakat Parcel)			
Residential MIR	1.303E-02	2.32	< 0.01
School MIR	4.110E-03	0.16	< 0.01
Total Residential Risk		**44.79**	**0.05**
Total School Risk		**1.67**	**< 0.01**
Valley Air District Thresholds		**20**	**1**
Project Construction Exceeds Thresholds?		**Yes**	**No**

Notes:
$\mu g/m^3$ = micrograms per cubic meter
MIR = Maximally Impacted Sensitive Receptor
[1] Chronic non-cancer hazard index was estimated by dividing the annual DPM concentration (as PM_{10} exhaust) by the reference exposure level of 5 $\mu g/m^3$.
Source: California Office of Environmental Health Hazard Assessment (OEHHA). 2015. Air Toxics Hot Spots Program Risk Assessment Guidelines. February. Website: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf.

The estimates shown in Table 3.3-17 include the application of measures required by District Rule 8021 and implementation of MMs AIR-1a and AIR-1b. As shown therein, the proposed project's construction DPM emissions would not exceed the Valley Air District's cancer risk or chronic non-cancer hazard index thresholds of significance at the maximum impacted receptor for any of the sensitive receptor age groups analyzed assuming that phases are constructed sequentially.

Nonetheless, the potential exists for all three project phases to be constructed concurrently, which would substantially increase the daily quantity of DPM emissions generated during project construction. As a result, the health risk impacts associated with project construction where phasing would be concurrent has the potential to generate DPM emissions resulting in cancer risks to nearby residents that exceed the Valley Air District's significance threshold of 20 cases per 1 million people even after incorporation of mitigation. As such, this impact would be significant and unavoidable after mitigation.

Table 3.3-17: Estimated Health Risks and Hazards—Mitigated Construction (Sequential Phasing)

Risk Scenario	Annual Average PM_{10} Exhaust Concentration ($\mu g/m^3$)	Cancer Risk (Risk Per One Million)	Chronic Non-Cancer Hazard Index[1]
Phase 1 (Tracy Alliance Parcels)			
Residential MIR	6.100E-03	1.08	<0.01
School MIR	2.460E-03	0.10	<0.01
Phase 2 (Suvik Farms Parcels)			
Residential MIR	2.700E-03	0.48	<0.01
School MIR	3.000E-04	0.01	<0.01
Phase 3 (Zuriakat Parcel)			
Residential MIR	2.900E-04	0.05	<0.01
School MIR	9.000E-05	<0.01	<0.01
Total Residential Risk		**1.62**	**0.05**
Total School Risk		**0.11**	**<0.01**
Valley Air District Thresholds		**20**	**1**
Project Construction Exceeds Thresholds?		**No**	**No**

Notes:
$\mu g/m^3$ = micrograms per cubic meter
MIR = Maximally Impacted Sensitive Receptor
[1] Chronic non-cancer hazard index was estimated by dividing the annual DPM concentration (as PM_{10} exhaust) by the reference exposure level of 5 $\mu g/m^3$.
Source: California Office of Environmental Health Hazard Assessment (OEHHA). 2015. Air Toxics Hot Spots Program Risk Assessment Guidelines. February. Website: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf.

Operation

Operation: Reactive Organic Gas

During operation, ROG would be emitted primarily from consumer products and motor vehicles. MM AIR-1c would require that the proposed project use zero-VOC consumer products during operation. While the full implementation of MM AIR-1c cannot be guaranteed, ROG emissions generated by the use of consumer products would be limited to the immediate area in which they are used on-site and would only occur during activities that use those products, such as facility cleaning activities. Therefore, nearby sensitive receptors would not be exposed to substantial ROG concentrations during project operations.

Direct exposure to ROG from motor vehicles would not result in health effects because the ROG emissions would be distributed across several miles of roadway and in the air. Therefore, the concentrations would not be great enough to result in direct health effects.

Operation: PM_{10}, $PM_{2.5}$, CO, and NO_X

As discussed in Impact AIR-2, after incorporation of identified mitigation, emissions of ROG and NO_X generated during project operation could exceed the Valley Air District annual thresholds of significance and maximum daily NO_X emissions could exceed the Valley Air District AAQA screening threshold. Therefore, emissions during operation of the proposed project could result in emission concentrations that exceed ambient standards, contribute substantially to an existing exceedance of an ambient air quality standard, or expose sensitive receptors to substantial pollutant concentrations.

Operation: Toxic Air Contaminants

Operation of the proposed project would involve the operation of heavy-duty, diesel-fueled vehicles that emit DPM, which has been identified by the ARB as a TAC. The Valley Air District's latest threshold of significance for TAC emissions is an increase in cancer risk for the maximally exposed individual of 20 in one million persons. Major sources of DPM during project operation include heavy-duty truck activities and worker vehicle trips. For purposes of this analysis, DPM is represented as exhaust emissions of PM_{10}.

Operational DPM emissions (PM_{10} exhaust) were estimated using CalEEMod, Version 2016.3.2, as described under Impact AIR-2. Operational emissions were assumed to be distributed over the project site with a working schedule of 24 hours per day, 7 days per week. Table 3.3-18 summarizes the mitigated emission rates of DPM during operation of the proposed project, incorporating measures required by District Rule 8021 and implementation of MM AIR-1c and MM AIR-1d.

Table 3.3-18: Mitigated Operational DPM Emissions (Phase 1 Only)

Construction Emissions	PM_{10} Exhaust (tons/year)
Mitigated Project Phase 1	
On-site[1]	1.412E-03
Off-site[2]	1.437E-04

Construction Emissions	PM_{10} Exhaust (tons/year)

Notes:
[1] Because of the off-model reductions applied to Phase 1 Mitigated Operational Emissions to demonstrate compliance with Mitigation Measure AIR-1d, which would require that all heavy-duty trucks utilized during operation of Phase I of the project meet the 2013 Optional Low-NO_x Standard of 0.02 gram of NO_x per brake horsepower-hour. This would represent a 90 percent reduction in NOx emissions from the current heavy-duty truck NOx standard of 0.2 gram of NOx per brake horsepower-hour. Because of the lack of available information related to reductions in the other criteria pollutants resulting from the application of Mitigation Measure AIR-1d, the mitigated PM_{10} exhaust emission estimates for operation of Phase I of the project do not reflect actual reductions to NO_x that would result from Mitigation Measure AIR-1d.
[2] The off-site emissions are adjusted to include only off-site emissions occurring along the local roadway network within a 2-kilometer radius of the project site.
Source: CalEEMod Output and Construction Health Risk Assessment Calculations; see Appendix B.

To assess impacts to off-site sensitive receptors, receptor locations within the AERMOD model were placed at locations of existing residences and the nearby school, all of which are located within a 2-kilometer radius of the project boundary. The MIRs for Phase 1 operation were a single-family residence located approximately 75 feet north of the project site, Banta Elementary School approximately 2,495 feet east of the project site, and on-site workers.

The Valley Air District has developed a set of guidelines for estimating cancer risks utilizing the Hot Spots Analysis and Reporting Program (HARP2), Version 19044, risk assessment stand-alone tool. Table 3.3-19 provides the estimated health and hazard impacts from operational emissions at the MIRs using HARP2.

Table 3.3-19: Estimated Health Risks and Hazards—Phase 1 Operation

Risk Scenario	Annual Average PM_{10} Exhaust Concentration ($\mu g/m^3$)	Cancer Risk (Risk Per One Million)	Chronic Non-Cancer Hazard Index[1]
Phase 1 (Tracy Alliance Parcels)			
Residential MIR	1.251E-02	13.13	< 0.01
School MIR	4.390E-03	1.13	< 0.01
Worker MIR	2.949E-02	2.92	0.01
Valley Air District Thresholds		**20**	**1**
Project Construction Exceeds Thresholds?		**No**	**No**

Risk Scenario	Annual Average PM_{10} Exhaust Concentration ($\mu g/m^3$)	Cancer Risk (Risk Per One Million)	Chronic Non-Cancer Hazard Index[1]

Notes:
$\mu g/m^3$ = micrograms per cubic meter
MIR = Maximally Impacted Sensitive Receptor
[1] Chronic non-cancer hazard index was estimated by dividing the annual DPM concentration (as PM_{10} exhaust) by the reference exposure level of 5 $\mu g/m^3$.
[2] Concentrations are taken from the air dispersion modeling results (Appendix B) and risk summary values are taken from HARP2 cancer risk calculation results (Appendix B).
[3] MM AIR-1c applies only to the generation of ROG and would not affect the generation of PM_{10} exhaust emissions.
[4] Phase 1 Mitigated Operational Emissions would be required to comply with Mitigation Measure AIR-1d, which would require that all heavy-duty trucks utilized during operation of Phase I of the project meet the 2013 Optional Low-NO_x Standard of 0.02 gram of NO_x per brake horsepower-hour. This would represent a 90 percent reduction in NO_x emissions from the current heavy-duty truck NO_x standard of 0.2 gram of NO_x per brake horsepower-hour. Because of the lack of available information related to reductions in the other criteria pollutants resulting from the application of Mitigation Measure AIR-1d, the mitigated PM_{10} exhaust emission estimates for operation of Phase I of the project do not reflect actual emission reductions that would result from Mitigation Measure AIR-1d.
Source: California Office of Environmental Health Hazard Assessment (OEHHA). 2015. Air Toxics Hot Spots Program Risk Assessment Guidelines. February. Website: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf.

As shown above in Table 3.3-19, the proposed project's operational DPM emissions during Phase I would not exceed the Valley Air District's cancer risk or chronic non-cancer hazard index thresholds of significance at the maximum impacted receptor for any of the sensitive receptors analyzed. As displayed in Chapter 2, Project Description, Table 2-2, Proposed Development Summary, Phase I of the proposed project would involve the development of approximately 1,849,500 square feet out of a total approximately 3,352,320 square feet across all three project phases, representing approximately 46 percent of the total proposed building space. In addition, as displayed in Table 3.3-10, Phase 1 of the proposed project would generate an estimated 2,611 daily vehicle trips out of the total 4,715 daily trips across all three project phases, representing approximately 55 percent of the total proposed operational vehicle activity. Moreover, the potential emission reductions to DPM from the application of MM AIR-1d, which would require the operation of a clean truck fleet during operation of all phases of the proposed project, was not represented in the cancer risk values during Phase I operation in Table 3.3-19. Because of a lack in operational information for Phases 2 and 3 of the proposed project, such as freight product origin, local truck circulation, or other details necessary to preform a site-specific health risk assessment, Phase 1 of the proposed project was the only project phase modeled for health risk and chronic non-cancer hazard impacts. As Phase 1 represents approximately 55 percent of the potential operational trucking impact, although operation of Phase 1 (Tracy Alliance) would not result in a significant impact in this regard, operation at full buildout of the proposed project could have a potentially significant health impact on nearby sensitive receptors, particularly the residential MIRs.

The implementation of MM AIR-1d would contribute to the minimization of DPM emissions generated from trucking emissions; however, full implementation of MM AIR-1d cannot be guaranteed. As a result, this impact would be significant and unavoidable after the incorporation of mitigation.

Level of Significance Before Mitigation

Potentially Significant Impact

Mitigation Measures

MM AIR-1d.

Level of Significance After Mitigation

Significant and Unavoidable Impact

Valley Fever

Valley Fever, or coccidioidomycosis, is an infection caused by inhalation of the spores of the fungus, *Coccidioides immitis (C. immitis*). The spores live in soil and can live for an extended time in harsh environmental conditions. Activities or conditions that increase the amount of fugitive dust contribute to greater exposure, and they include dust storms, grading, and recreational off-road activities.

The San Joaquin Valley is considered an endemic area for Valley Fever. By geographic region, hospitalizations for Valley Fever in the San Joaquin Valley increased from 230 (6.9 per 100,000 population) in 2000 to 701 (17.7 per 100,000 population) in 2007. Within the region, Kern County reported the highest hospitalization rates, increasing from 121 (18.2 per 100,000 population) in 2000 to 285 (34.9 per 100,000 population) in 2007, and peaking in 2005 at 353 hospitalizations (45.8 per 100,000 population). The Centers for Disease Control and Prevention indicates that 752 of the 8,657 persons (8.7 percent) hospitalized in California between 2000 and 2007 for Valley Fever died.[19]

The distribution of *C. immitis* within endemic areas is not uniform and growth sites are commonly small (a few tens of meters) and widely scattered. Known sites appear to have some ecological factors in common suggesting that certain physical, chemical, and biological conditions are more favorable for *C. immitis* growth. Avoidance, when feasible, of sites favorable for the occurrence of *C. immitis* is a prudent risk management strategy. Listed below are ecologic factors and sites favorable for the occurrence of *C. immitis*:[20]

1. Rodent burrows (often a favorable site for *C. immitis*, perhaps because temperatures are more moderate and humidity higher than on the ground surface).
2. Prehistoric Indian campsites near fire pits.
3. Areas with sparse vegetation and alkaline soils.
4. Areas with high salinity soils.
5. Areas adjacent to arroyos (where residual moisture may be available).

[19] The Centers for Disease Control and Prevent (CDC). 2009. Increase in Coccidioidomycosis – California, 2000-2007. February 13. Website: https://www.cdc.gov/mmwr/preview/mmwrhtml/mm5805a1.htm#:~:text=In%20California%2C%20coccidioidomycosis%20cases%20requiring,in%202007%20(Figure%201). Accessed February 18, 2021.

[20] United States Geological Survey (USGS). 2000. Operational Guidelines (Version 1.0) for Geological Fieldwork in Areas Endemic for Coccidioidomycosis (Valley Fever). Website: http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.486.1526&rep=rep1&type=pdf. Accessed March 1, 2021.

6. Packrat middens.
7. Upper 30 centimeters of the soil horizon, especially in virgin undisturbed soils.
8. Sandy well aerated soil with relatively high-water holding capacities.

Sites within endemic areas less favorable for the occurrence of *C. immitis* include:

1. Cultivated fields
2. Heavily vegetated areas (e.g., grassy lawns)
3. Higher elevations (above 7,000 feet)
4. Areas where commercial fertilizers (e.g., ammonium sulfate) have been applied
5. Areas that are continually wet
6. Paved (asphalt or concrete) or oiled areas
7. Soils containing abundant microorganisms
8. Heavily urbanized areas where there is little undisturbed virgin soil

The project site is relatively undeveloped and is surround by undeveloped, agricultural, industrial, and residential land uses which are semi-rural to urban in character. Because the majority of the project site and the immediately surrounding vicinity consists of urbanized development or cultivated fields, the project site is an area that would lead to a low probability of having *C. immitis* growth sites and exposure from disturbed soil.

Construction activities would generate fugitive dust that could contain *C. immitis* spores. The proposed project would be required to minimize the generation of fugitive dust during construction activities by complying with District Rule 8021. Therefore, this regulation would ensure that Valley Fever impacts during construction are less than significant.

During operations, dust emissions are anticipated to be negligible, because the site for each project phase would be occupied by buildings, pavement, and landscaped areas after construction is complete for that project phase. Therefore, project operations would not occur on undeveloped sites and dust emissions typically associated with activity on unpaved surfaces would be negligible. This condition would preclude the possibility of the proposed project from generating significant fugitive dust that may contribute to Valley Fever exposure. Impacts would be less than significant.

Asbestos and Lead-Based Paint Exposure

According to a map of areas where naturally occurring asbestos in California are likely to occur, there are no such areas in the project area.[21] Therefore, development of the proposed project is not anticipated to expose receptors to naturally occurring asbestos. Moreover, the proposed project would include the demolition of two single-family homes and various agricultural buildings on-site. As a result, the demolition of the existing structures could potentially expose workers and nearby receptors to asbestos-containing material, such as insulation, or lead-based paint. Nonetheless, the proposed project would be subject to California Code of Regulations, Section 66261.24; Title 8,

[21] United States Geological Survey (USGS). 2011. Reported Historic Asbestos Mines, Historic Asbestos Prospects, and Other Natural Occurrences of Asbestos in California. Website: https://pubs.usgs.gov/of/2011/1188/. Accessed February 18, 2021.

California Code of Regulations, Section 1532.1; and Title 40, Code of Federal Regulations, Part 745, which are intended to limit hazardous material emissions, including asbestos and lead, from demolition or renovation of structures and the associated disturbance of waste material generated or handled during these activities. The rule addresses the national emissions standards for asbestos and lead along with some additional requirements. Therefore, projects that comply with these regulations would ensure that hazardous demolition materials, such as asbestos or lead-based paint, would be removed and disposed of appropriately and safely. By complying with these existing regulations, thereby minimizing the potential release of airborne asbestos or lead emissions, proposed demolition activity would not result in a significant impact to air quality. This impact would be less than significant.

Level of Significance Before Mitigation

Less Than Significant Impact

Mitigation Measures

None

Objectionable Odors Exposure

Impact AIR-4: **The proposed project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.**

Odor impacts on residential areas and other sensitive receptors, such as hospitals, day-care centers, schools, etc. warrant the closest scrutiny, but consideration should also be given to other land uses where people may congregate, such as recreational facilities, worksites, and commercial areas.

Two situations create a potential for odor impact. The first occurs when a new odor source is located near an existing sensitive receptor. The second occurs when a new sensitive receptor locates near an existing source of odor. Impacts to new receptors is generally outside the scope of CEQA review but is included in this analysis for informational purposes only. The Valley Air District has determined the common land use types that are known to produce odors in the Air Basin and their associated screening distances when determining potentially significant odor impacts. These types and screening distances are shown in Table 3.3-20.

Table 3.3-20: Screening Levels for Potential Odor Sources

Odor Generator	Distance
Wastewater Treatment Facilities	2 miles
Sanitary Landfill	1 mile
Transfer Station	1 mile
Composting Facility	1 mile
Petroleum Refinery	2 miles
Asphalt Batch Plant	1 mile
Chemical Manufacturing	1 mile

Odor Generator	Distance
Fiberglass Manufacturing	1 mile
Painting/Coating Operations (e.g., auto body shop)	1 mile
Food Processing Facility	1 mile
Feed Lot/Dairy	1 mile
Rendering Plant	1 mile
Source: San Joaquin Valley Air Pollution Control District (Valley Air District). 2015. Final Draft Guidance for Assessing and Mitigating Air Quality Impacts. February 19. Website: http://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF/ Accessed February 16, 2021.	

According to the Valley Air District GAMAQI, analysis of potential odor impacts should be conducted for the following two situations:

- **Generators:** projects that would potentially generate odorous emissions proposed to locate near existing sensitive receptors or other land uses where people may congregate, and
- **Receivers:** residential or other sensitive receptor projects or other projects built for the intent of attracting people locating near existing odor sources.

Project Analysis

Land uses that are typically identified as sources of objectionable odors include landfills, transfer stations, sewage treatment plants, wastewater pump stations, composting facilities, feed lots, coffee roasters, asphalt batch plants, and rendering plants. The proposed project would not involve any of these or similar activities. Therefore, the proposed project would not be considered to have the potential to expose nearby persons to substantial sources of objectionable odors.

During construction, the various diesel-powered vehicles and equipment in use on-site would create localized odors. The proposed project would develop approximately 191 acres, which would require the operation of construction equipment and vehicles throughout the project site. However, as the proposed buildings would be located within the interior of the project site and set back from the project boundaries and surrounding land uses, the operation of construction equipment and vehicles would predominantly occur in the interior of the project site and not along the project boundaries. As such, these odors would be temporary and would not likely be noticeable for extended periods of time beyond the project's site boundaries. The potential for diesel odor impacts is therefore less than significant.

As an industrial development project, the proposed project would not constitute the development of residences, schools, hospitals, or other sensitive receptors and therefore does not have the potential to place sensitive receptors near existing odor sources. Therefore, the proposed project would neither constitute a land use which would generate odors affecting a substantial amount of people nor place new receptors that could be affected by existing odor sources.

Level of Significance

Less Than Significant Impact

3.3.5 - Cumulative Impacts

The geographic scope considered for cumulative impacts to air quality is the Air Basin. In developing mass emission thresholds of significance for criteria pollutants and ozone precursors, the Valley Air District considers the emission levels for which a project's individual emissions would be cumulatively considerable. Therefore, if a project would exceed the identified construction or operational significance thresholds, its emissions would be cumulatively considerable.

The Air Basin is in nonattainment for ozone, PM_{10}, and $PM_{2.5}$, which means that the background levels of those pollutants are at times higher than the ambient air quality standards and a cumulative air quality impact currently exists for the region. Therefore, if a project exceeds the Valley Air District significance thresholds for ozone precursor emissions or emissions of $PM_{2.5}$ or PM_{10}, that project would be considered to contribute to an existing cumulative air quality impact. As discussed in Impact AIR-2, MMs AIR-1a and AIR-1b would reduce the proposed project's potentially significant air quality impacts related to ozone precursor emissions during construction; however, as discussed in Impact AIR-2, project construction emissions for ozone precursors would remain potentially significant after implementation of identified mitigation should all three project phases be constructed concurrently.. In addition, because the full implementation of MMs AIR-1c and AIR-1d cannot be guaranteed during project operation, the proposed project could result in potentially significant impact related to regional emissions significance threshold for ROGs and NO_X, both ozone precursor pollutants, during project operation. Moreover, because full implementation of MMs AIR-1c and AIR-1d cannot be guaranteed, the proposed project could result in a potentially significant localized violation during operation.

As discussed in Impact AIR-2, District Rule 8021 would be required, which would further ensure that air quality impacts related to fugitive particulate matter during construction activities are less than significant. Nonetheless, after incorporation of identified mitigation and implementation of the required rules and regulations, the proposed project could result in construction and operational emissions which are greater than the respective Valley Air District significance thresholds and could therefore have a cumulatively considerable contribution to a cumulative impact. The proposed project would therefore result in significant and unavoidable cumulative air quality impacts.

With regard to impacts on sensitive receptors, the DPM emissions from construction of the proposed project could result in significant health impacts if all three project phases are constructed concurrently. Therefore, the proposed project's impact could be cumulatively considerable. In addition, the operational DPM emissions during Phase 1 of the proposed project would not result in significant health impacts. However, Phase 1 of the proposed project would constitute approximately 55 percent of anticipated trucking activity across the whole project. Therefore, the combined operation of the proposed project could result in exposing nearby sensitive receptors to substantial amounts of pollutants. Nonetheless, the cumulative impact associated with construction and operation of the proposed project would be cumulatively considerable.

Odor impacts that would be associated with the proposed project would principally be temporary in nature and limited to the combustion of diesel fuels during construction and operation. The impact would be less than significant during project construction and operation would be intermittent and spatially dispersed. As such, associated odors would dissipate quickly. In addition, no adverse cumulative condition related to odors to which the proposed project could contribute currently exists. Given the proximity of cumulative projects to the proposed project and the expected duration of sensitive receptor exposure to project-related diesel exhaust, the proposed project in combination with other cumulative projects would not cause a significant cumulative effect. Therefore, cumulative odor impacts would be less than significant.

The proposed project would result in a cumulatively considerable contribution to significant cumulative air quality and health impacts with respect to consistency with the applicable AQP (Impact AIR-1), cumulative criteria pollutant emissions during both construction and operation (Impact AIR-2), and impacts to sensitive receptors during both construction and operation (Impact AIR-3).

Level of Cumulative Significance Before Mitigation

Potentially significant impact with respect to consistency with the applicable AQP (Impact AIR-1), cumulative criteria pollutant emissions during both construction and operation (Impact AIR-2), and impacts to sensitive receptors during both construction and operation (Impact AIR-3).

Less than significant with respect to odor impacts (Impact AIR-4).

Mitigation Measures

Implement MMs AIR-1a to AIR-1d and MM AIR-3

Level of Cumulative Significance After Mitigation

Significant and unavoidable impact with respect to consistency with the applicable AQP (Impact AIR-1), cumulative criteria pollutant emissions during both construction and operation (Impact AIR-2), and impacts to sensitive receptors during both construction and operation (Impact AIR-3).

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3.4 - Biological Resources

3.4.1 - Introduction

This section describes the existing biological resources conditions in the project site and vicinity,[1] as well as the relevant regulatory framework. This section also evaluates the potential impacts related to biological resources that could result from implementation of the proposed project and appropriate and feasible mitigation measures to reduce potential impacts to a less than significant level. Information in this section is based, in part, on-site reconnaissance surveys of the project site that included a Biological Resources Assessment (BRA). The BRA can be found in Appendix C.

The following comments were received during the Draft Environmental Impact Report (Draft EIR) scoping period related to Biological Resources:

- **Central Valley Regional Water Quality Control Board:** The commenter describes the various Regional Water Quality Control Board (RWQCB) regulations and policies that would need to be discussed in the Draft EIR and properly mitigated for. In addition, the commenter provides background information regarding the types of permits required for this project to comply with regulations meant to protect water quality.
- **San Joaquin Council of Governments:** The commenter states that the City of Tracy (City) is a signatory to San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) and that the project site would fall in the Planning Area. The commenter explains that participation in the SJMSCP satisfies requirements of both the State and federal Endangered Species Acts and ensures that the impacts are mitigated below a level of significance in compliance with the California Environmental Quality Act (CEQA). The commenter recommends that the co-applicants schedule an SJMSCP Biologist to perform a pre-construction survey prior to any ground disturbance. The commenter also explains that the proposed project would need to implement SJMSCP Incidental Take Minimization Measures (ITMMs) and mitigation requirements.

3.4.2 - Methods

Records Searches and Pedestrian Survey to Identify Existing Biological Resources

Literature Review

The literature review provides a baseline from which to evaluate the biological resources potentially occurring on the project site, as well as in the surrounding study area.

FirstCarbon Solutions (FCS) Biologists examined existing environmental documentation for the project site and immediate vicinity, an approximately 500-foot buffer where applicable. This documentation included the BRA noted above; relevant biological studies for the project site and its immediate vicinity; relevant literature pertaining to the habitat requirements of special-status species potentially occurring within of the project site; and federal and State register listings, protocols, and species data

[1] Off-site frontage improvements are limited in nature and are located within Rights of Way. Off-site traffic improvements have been contemplated as part of City's Traffic Management Plan and the associated environmental document.

provided by the United States Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW).

Elevation and Drainage

FCS Biologists reviewed current United States Geological Survey (USGS) 7.5-minute topographic quadrangle map(s) and aerial photographs as a preliminary step in the analysis of the existing conditions within the project site and immediate vicinity. Information obtained from the review of the topographic maps included elevation range, general watershed information, and potential drainage feature locations.[2] Aerial photographs provide a perspective of the most current site conditions relative to on-site and off-site land use, plant community locations, and potential locations of wildlife movement corridors.

Soil

FCS Biologists also reviewed United States Department of Agriculture (USDA) soil surveys to establish if soil conditions in the project site are suitable for any special-status plant species.[3] These soil profiles include soil series with similar thickness, arrangement, and other important characteristics. The soil series consist of separate soil mapping units that provide specific information regarding soil characteristics. Many special-status plant species have a limited distribution based exclusively on soil type. Therefore, pertinent USDA soil survey maps were reviewed to determine the existing soil mapping units within the project site and to establish if soil conditions are suitable for any special-status plant species.

Special-status Wildlife and Plant Species

FCS Biologists compiled a list of threatened, endangered, and otherwise special-status species previously recorded on the project site and within the general project site vicinity. The list was based on a search of the CDFW California Natural Diversity Database (CNDDB),[4] a special-status species and plant community account database, and the California Native Plant Society (CNPS) Electronic Inventory (CNPSEI) of Rare and Endangered Vascular Plants of California database[5] for the *Tracy, California* USGS 7.5-minute Topographic Quadrangle Map. The database search results can be found in Appendix C. The CNDDB Biogeographic Information and Observation System (BIOS) database[6] was used to determine the distance between known recorded occurrences of special-status species and the project site.

Trees

The City of Tracy Municipal Code, Chapter 7.08 pertains to the alteration or removal of street trees, which are not present on the project site. The City does not have an adopted Tree Protection Ordinance relating to alteration or removal of trees on private property.

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2 United States Geological Survey (USGS). 2020 USGS Maps. Website: https://www.usgs.gov/products/maps/map-topics/overview. Accessed April 24, 2020.

3 United States Department of Agriculture (USDA). No date. Web Soil Survey: 2020 Soil Survey. Website: https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx. Accessed April 22, 2020.

4 California Department of Fish and Wildlife (CDFW). 2020. California Natural Diversity Database (CNDDB). Website: https://wildlife.ca.gov/Data/CNDDB/Maps-and-Data. Accessed April 22, 2020.

5 California Native Plant Society (CNPS). 2020. Rare and Endangered Plant Inventory. Website: http://rareplants.cnps.org/. Accessed April 22, 2020.

6 California Department of Fish and Wildlife (CDFW). 2020. Biogeographic Information and Observation System (BIOS 5). Website: https://map.dfg.ca.gov/bios/.

Jurisdictional Waters and Wetlands

FCS Biologists reviewed USGS topographic maps and aerial photography to identify any potential natural drainage features and water bodies. In general, all surface drainage features identified as blue-line streams on USGS maps and linear patches of vegetation are expected to exhibit evidence of flows and considered potentially subject to State and federal regulatory authority as "waters of the United States and/or State." A preliminary assessment was conducted to determine the location of any existing drainages and limits of project-related grading activities, to aid in determining whether a formal delineation of waters of the United States or State is necessary.

Field Survey

The reconnaissance-level field survey was conducted by FCS Biologists, Bernhard Warzecha and Robert Carroll, on April 7, 2020, from 11:45 a.m. to 2:45 p.m. Weather conditions during the field survey were partly cloudy with a high temperature of 65°F (degrees Fahrenheit).

The objective of the survey was to ascertain existing site conditions and identify potentially suitable habitat areas for various special-status plant and wildlife species. Special-status or unusual biological resources identified during the literature review were ground-truthed during the reconnaissance-level survey. Special attention was paid to sensitive habitats and areas potentially supporting special-status floral and faunal species.

3.4.3 - Environmental Setting

Physical Habitat/Vegetation

Habitat is an area consisting of a combination of resources (e.g., food, cover, water) and environmental conditions (e.g., temperature, precipitation, and presence or absence of predators and competitors) that promotes occupancy by individuals of a species and enables those individuals to survive and reproduce. Thus, habitat arises from interaction among soils, hydrology, climate, vegetation, and others. Soils, hydrology, and climate are addressed in other sections of this Draft EIR; this habitat discussion includes information regarding vegetation.

City of Tracy

The City of Tracy General Plan Planning Area currently contains a range of vegetation and habitat types including urban, agricultural, riparian woodlands, seasonal wetlands, farmed wetlands, and non-native grasslands. These vegetation areas and habitats, which are described below, host a wide range of wildlife and plant species that reflect the diversity in San Joaquin County and the Central Valley.[7] The Planning Area is included within the General Plan as a signal to the County and other nearby local and regional authorities that the City recognizes that planning and development within this area has an impact on the future of the City. Under State law, the City is invited to comment on development within the Planning Area that is subject to review by the County as the Lead Agency. The Planning Area contains approximately 114 square miles and is 92 square miles larger than the city limits and 72 square miles larger than the proposed Sphere of Influence (SOI).[8] Figure 1-2 of the

[7] Design, Community, and Environment. 2011. City of Tracy General Plan (prepared for the City of Tracy). Website: https://www.ci.tracy.ca.us/documents/2011_General_Plan.pdf. Accessed: January 18, 2021.

[8] Ibid.

City's General Plan delineates the city limits, Planning Area, and SOI. The project site is located within the City's SOI, but not within the City municipal boundaries.

Agricultural

Much of the land outside of the Tracy city limits is used for agricultural production. This area includes land that is currently in agricultural use and lands that have been used for agricultural uses in the past and remain non-urbanized.

Urban

The Urban land use type applies to the built-up portions of Tracy. Much of the land in the city limits and portion of the lands in the City's SOI are considered Urban.

Non-native Grasslands

The majority of non-native grasslands within Tracy and its SOI in the General Plan Planning Area occur within the southern portion of the City.

Riparian Woodland

The Great Valley Riparian Woodland communities lie in the northern portion of the City and its SOI, along the Old River and Tom Paine Slough riparian zones, and in the southern portion of the City and its SOI, along the Corral Hollow system, which flows northeast.

Seasonal Wetlands

There are numerous seasonal wetlands throughout the City and its SOI.

Farmed Wetlands

Wetland areas that are currently in agricultural uses are defined as farmed wetlands. This type of area occurs in the northern portion of the City and its SOI.

Project Site

The project site is almost entirely comprised of active agricultural fields consisting of alfalfa, almond tree orchards, and hay; associated agricultural and a few rural residential structures and irrigation/drainage channels are interspersed throughout the project site. Additionally, a ruderal/disturbed area is located within the southwestern corner of the project site along Grant Road Line which shows evidence of previous development. A comprehensive list of plant species observed during the April 2020 site visit can be found in Appendix C.

Agricultural

Based on preliminary mapping, the project site potentially includes approximately 188 acres of active agricultural fields. Alfalfa fields are located in the northern portion of the site, pecan (*Carya illinoinensis)* tree orchard is located in the eastern portion, a hay field is located in the southwestern portion, and irrigation/drainage channels spread throughout the agricultural fields along private dirt roads. The fields are routinely managed–including the applications of pesticides, herbicides, irrigation, and seasonal harvests–and disced regularly. Plant species observed within areas not subject to active agriculture (e.g., narrow strips along field borders and access roads) are dominated by common ruderal species and non-native annual grasses, including field bindweed (*Convolvulus*

arvensis), shortpod mustard (*Hirschfeldia incana*) black mustard (*Brassica nigra)*, soft chess (Bromus hordeaceous), ripgut brome (*Bromus diandrus*), seaside barley (*Hordeum marinum* ssp*. gussaneonum)*, wall barley (*Hordeum murinum)*, and others.

Ruderal/Disturbed

This small area of the project site consists of approximately 0.63 acre along Grant Line Road. Species observed in this area include ryegrass (Festuca perennis), Bermuda grass (Cynodon dactylon), and other non-native and ruderal plants. Ruderal/Disturbed land is classified as areas that have been physically disturbed (by previous legal human activity) and are no longer recognizable as a native or naturalized vegetation association but continues to retain a soil substrate. Typically, vegetation, if present, is nearly exclusively composed of non-native plant species such as ornamentals or ruderal exotic species that take advantage of disturbance, or that shows signs of past or present animal usage that removes any capability of providing viable natural habitat for uses other than dispersal. Examples of Ruderal/Disturbed land include areas that have been graded, repeatedly cleared for fuel management purposes and/or experienced repeated use that prevents natural revegetation (i.e., dirt parking lots, trails that have been present for several decades), recently graded firebreaks, graded construction pads, construction staging areas, off-road vehicle trails, and others.

Urban/Developed

This small area of the project site consists of approximately 4 acres at the intersection of Grant Line Road and Paradise Road. This area contains a combination of equipment storage sheds, active barns, parking, and a few rural residential structures. Urban/Developed land is classified as areas that have been constructed upon or otherwise physically altered to an extent that native vegetation is no longer supported and retains no soil substrate. Urban/Developed land is characterized by permanent or semi-permanent structures, pavement, or hardscape, and landscaped areas that often require irrigation. Areas where no natural land is evident because a large amount of debris or other materials have been placed upon it may also be considered Urban/Developed (e.g., car recycling plant, quarry).

Cattail Marsh

One occurrence of approximately 0.07 acre of cattail (*Typha* spp.) marsh was observed in the channel along California Ave, on the northern boundary of the project site, within the Zuriakat parcel. The majority of the cattails consist of broadleaf cattails (*Typha latifolia*). Most plants were senescent during the time of the survey; however, some live plants were also observed. This vegetation type is classified as a California Natural Community by the CDFW (Type 52.050.04–Typha [*latifolia, angustifolia])*.

Sensitive Biological Communities

Biological communities are assemblages of organisms that live within or use a variety of habitats for their range-of-life functions. Of the habitat communities discussed above, some are further identified as sensitive biological communities. For the purpose of this Draft EIR, sensitive biological communities are defined as habitats that fulfill special functions or have special values (e.g., greater biological diversity), such as wetlands, streams, and riparian habitat. Because wildlife is a major

aspect of a biological community, this discussion of sensitive biological communities describes wildlife present in such communities.

Sensitive Biological Communities on the Project Site

A small portion of the project site contains approximately 0.07 acre of cattail marsh in the channel along California Avenue, on the northern boundary of the project site, within the Zuriakat parcel. The majority of the cattails consisted of broadleaf cattails. This vegetation type is classified as a California Natural Community by the CDFW (Type 52.050.04–Typha [*latifolia, angustifolia]*). This natural community is discussed in further detail in Impact BIO-3 below.

Wetlands and Waters of the United States and the State

Wetlands and waters of the United States and waters of the State are protected as aquatic resources that provide habitat for common and special-status species. Types of aquatic resource features include open water, developed open water, tidal marsh, seasonal wetland, wetlands swale, streams, creeks, and other waters.

City of Tracy

Wetlands, waters of the United States, and waters of the State in the City primarily occur in northern portion of the City along the Old River and Tom Paine Slough riparian zones, and in the southern portion of the City along the Corral Hollow system, which flows northeast. Additionally, there are numerous seasonal wetlands scattered through the City.[9]

Project Site

There are several irrigation/drainage channels throughout the project site, which appear to have a potential hydrological connection to the San Joaquin River, a traditional navigable water of the United States. The man-made channels on the project site have all been excavated within upland habitat for the purpose of on-site agricultural irrigation and drainage.

A small portion of the project site contains an approximately 0.07-acre cattail marsh in the channel along California Avenue, on the northern boundary of the project site, within the Zuriakat parcel. These features are discussed in further detail in Impact BIO-3 below.

Common Species

The vegetation community and land cover types discussed above provide habitat for numerous local wildlife species. The agricultural fields, including the almond orchard is likely to provide cover and foraging opportunities for urban-adapted mammals such as raccoon (*Procyon lotor)* and Virginia opossum (*Didelphis virginiana)*. California ground squirrel (*Otospermophilus beecheyi)* was observed only at the area of the project residential site where rural residential uses are located. No California ground squirrel or ground squirrel burrows were observed on or near the agricultural fields, orchard, or channel. One jack rabbit (*Lepus californicus*) was observed on the project site. While not

[9] Design, Community, and Environment. 2011. City of Tracy General Plan (prepared for the City of Tracy), pages, 6-3-6-5. Website: https://www.ci.tracy.ca.us/socuments/2011_General_Plan.pdf.Accessed: January 18, 2021.

physically observed during the field survey, FCS Biologists found numerous raccoon and great egret (*Ardea alba)* tracks throughout the project site.

Because of a lack of suitable habitat, it is unlikely that most amphibians and reptiles would regularly occur on the project site. Potential species occurring on the project site include western fence lizard (*Sceloporus occidentalis*), terrestrial garter snake (*Thamnophis elegans*), gopher snake (*Pituophis melanoleucus*), and Northern Pacific tree frog (*Pseudacris regilla)*. Northern Pacific tree frog was the only amphibian observed on the project site; no other amphibians or reptiles were observed during the field survey.

Ornamental trees within the Urban/Developed portion of the project site and within the greater project site vicinity (approximately 500 feet) also provide suitable habitat for nesting avian species. A comprehensive list of wildlife species observed during the April 2020 site visit can be found in Appendix C.

Special-status Species

Special-status species, whether plants, wildlife, or fish, are considered sufficiently rare that they require special consideration and/or protection and have been or should be listed as rare, threatened, or endangered by the federal and/or State governments. Special-status species are defined as meeting one or more of the following criteria:

- Listed or proposed for listing under the California Endangered Species Act (CESA) or the federal Endangered Species Act.
- Protected under other regulations (e.g., Migratory Bird Treaty Act [MBTA]).
- CDFW Species of Special Concern.
- Plant species ranked by the CNPS; or
- Otherwise entitled to receive consideration during environmental review under CEQA pursuant to applicable laws and regulations.

The following discussion focuses on potential for occurrence of special-status species in the project site.

Special-status Plant Species Evaluated

Special-status plants and plant communities are considered sensitive biological resources when federal, State, or local laws regulate their development, limited distributions, and habitat requirements of special-status plant or wildlife species that occur within them.

The Special-status Plant Species Table (Appendix C, Table 1) identifies six special-status plant species and CNPS sensitive species that have been recorded to occur within the *Tracy*, *California* USGS 7.5-minute Topographic Quadrangle Map as recorded by the CNDDB and CNPSEI.[10,11] The table also

[10] California Department of Fish and Wildlife (CDFW). 2020. California Natural Diversity Database (CNDDB). Website: https://wildlife.ca.gov/Data/CNDDB/Maps-and-Data. Accessed April 24, 2020.

[11] California Native Plant Society (CNPS). 2020. Rare and Endangered Plant Inventory. Website: http://rareplants.cnps.org/. Accessed April 24, 2020.

includes the species' status, required habitat, and potential to occur within the project site. All special-status plant species have been determined unlikely to occur on the project site, based on the absence of suitable habitat, lack of observations during FCS's field survey, and past and ongoing disturbance through agricultural activity.

Special-status Wildlife Species Evaluated

The Special-status Wildlife Species Table (Appendix C, Table 2) identifies seven federal and State listed threatened and/or endangered wildlife species, and 15 other special-status species that have been recorded in the CNDDB as occurring within the *Tracy*, *California* USGS 7.5-minute Topographic Quadrangle Map (Exhibit 3.4-2).[12] The table also includes species' status, required habitat, and potential to occur within the project site. Fourteen special-status wildlife species have been determined unlikely to occur on the project site, primarily based on the absence of suitable habitat and past and ongoing disturbance through agricultural activity.

Eight special-status wildlife species have at least some potential to occur on the project site and are therefore discussed in further detail below.

Mammals

San Joaquin Kit Fox

San Joaquin kit fox (*Vulpes macrotis mutica)* is listed under the Endangered Species Act as endangered and is listed under CESA as threatened. This species is also covered under the SJMSCP. This species is found in annual grasslands with scattered shrub vegetation and needs loose textured sandy soils for burrowing. The project site generally lacks suitable habitat for this species. San Joaquin kit fox has been sporadically reported from southern areas of Tracy, less than 4 miles from the project site.[13] While San Joaquin kit fox is unlikely to occur on the project site and no dens or other signs of San Joaquin kit fox were observed during the reconnaissance-level field survey, it cannot be ruled out that a stray or migrating San Joaquin kit fox may be found on the project site before or during construction.

Pallid Bat

Pallid bat (*Antrozous pallidus)* is a State Species of Special Concern. This species occurs commonly in low elevations throughout California and occupies a wide variety of habitats, including woodlands, grasslands, shrublands, and forests from sea level up to mixed conifer forests.[14] This species is most common in open, dry habitats with rocky areas, but may also be found in caves, crevices, hollow trees, and buildings for roosting. The project site generally lacks suitable habitat for this species and all recorded occurrences are over 5 miles from the project site. However, the barn and other structures located within the project site and trees within the immediate vicinity of the project site may provide marginal roosting habitat for this species.

Townsend's Big-Eared Bat

Townsend's big-eared bat (*Corynorhinus townsendii)* is a State Species of Special Concern and is covered under the SJMSCP. This species is found throughout California, but details regarding its

[12] California Department of Fish and Wildlife (CDFW). 2020. California Natural Diversity Database (CNDDB). Website: https://wildlife.ca.gov/Data/CNDDB/Maps-and-Data. Accessed April 24, 2020.

[13] Ibid.

[14] Ibid.

distribution are not well known. This species is found in all but alpine and sub-alpine habitats. It is most common in mesic habitats where it gleans from trees or feeds along habitat edges. This species requires caves, tunnels, buildings, or other anthropogenic structures for roosting.[15] The project site generally lacks suitable habitat for this species and all recorded occurrences are over 5 miles from the project site. However, the barn and other structures located within the project site may provide marginal roosting habitat for this species.

Western Mastiff Bat

Western mastiff bat (*Eumops perotis californicus)* is a State Species of Special Concern and is covered under the SJMSCP. This species occurs in a wide variety of habitats from desert scrub to chaparral and oak woodland. This species is primarily a crevice dwelling species and roosts are often found under large slabs of granite, sandstone, or in columnar basalt. This species also roosts within the cracks in buildings.[16] The project site generally lacks suitable habitat for this species and all recorded occurrences are over 5 miles from the project site. However, the barn and other structures located within the project site and trees within the immediate vicinity of the project site may provide marginal roosting habitat for this species.

Birds

Song Sparrow

Song sparrow (*Melospiza melodia; "*Modesto" population) is a State Species of Special Concern. This species occurs in emergent freshwater marshes dominated by cattails as well as riparian willow thickets. Species also nest in riparian forests of Valley Oak with a sufficient understory of blackberry along vegetated irrigation canals and levees. Marginal nesting habitat is present within the cattail marsh located in the northern portion of the project site, within the Zuriakat parcel.

Tricolored Blackbird

Tricolored blackbird (*Agelaius tricolor)* has been listed as a Threatened species under CESA and is covered under the SJMSCP. Nesting colonies of this species are addressed in the SJMSCP. Tricolored blackbird nests have typically been reported within extensive cattail marshes, willow canopies, or blackberry or thistle thickets. The species' basic requirements for selecting breeding sites are open accessible water; a protected nesting substrate, including either flooded or thorny or spiny vegetation; and a suitable foraging space providing adequate insect prey within a mile or two of the nesting colony. Emergent vegetation within the cattail marsh represents potential nesting habitat, albeit marginal. No tricolored blackbirds, nests, or signs of previous nesting activity in the cattail marsh within the Zuriakat parcel on the project site were observed. However, it cannot be ruled out that tricolored blackbird nesting may occur in the cattail marsh within the Zuriakat parcel.

Burrowing Owl

Burrowing owl (*Athene cunicularia)* is a California Species of Special Concern, and impacts including loss of habitat for this species is also covered under the SJMSCP. This is species is often found in open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. It is considered a subterranean nester that is dependent upon burrowing mammals,

[15] California Department of Fish and Wildlife (CDFW). 2020. California Natural Diversity Database (CNDDB). Website: https://wildlife.ca.gov/Data/CNDDB/Maps-and-Data. Accessed April 24, 2020.

[16] Elizabeth Pierson and William Rainey, Terrestrial Mammal Species of Special Concern in California, Bolster, B.C., Ed 1998.

most notably the California ground squirrel. During the field survey, two California ground squirrels were observed on the highly disturbed, developed and currently used residential area within the project site. No burrows or burrow complexes suitable for burrowing owl or signs of presence of burrowing owl were observed during the field survey; however, it cannot be ruled out that a burrowing owl may occupy the project site before or during construction.

Swainson's Hawk

Swainson's hawk (*Buteo swainsoni)* is listed as a Threatened species under CESA and is also covered under the SJMSCP. This species can be found in scattered trees, riparian areas, savannas, and scattered on lines of trees on agricultural lands. Swainson's hawk requires adjacent foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.

Suitable foraging habitat is present on the project site and suitable nesting habitat is present within the immediate vicinity of the project site. This species was observed during the field survey.

Migratory and Nesting Birds

Trees within the project site provide suitable nesting habitat for various avian species, including those protected under the MBTA. Some species protected under the MBTA that were observed during the field survey include Say's phoebe (*Sayornis saya*), mourning dove (*Zenaida macroura)*, and killdeer (*Charadrius vociferus)*.

Wildlife Movement Corridors

City of Tracy

Terrestrial habitat throughout the City and its SOI ranges from high to low quality and varies in accessibility and continuity for wildlife movement. Wetland and riparian habitats provide wildlife movement corridors for numerous fish and bird species. In addition, the Pacific Flyway (a major north–south flyway for migratory birds in America) encompasses the entire West Coast, and migrating bird species utilize the wetland and riparian habitats for foraging and nesting.

Project Site

FCS Biologists evaluated the project site for evidence of a wildlife movement corridor during the biological resources survey, and concluded that the project site is not part of or within a wildlife movement corridor. The project site is surrounded by industrial developments and is situated in a semi-urban landscape with high amounts of traffic from local industrial operations. Further, Interstate 205 (I-205) separates the project site from the closest wildlife corridor to the north, and I-5 and Business I-205 potentially preclude non-volant wildlife movement from the east and southeast.

Regulated Trees

The City of Tracy Municipal Code, Chapter 7.08, pertains to the alteration or removal of street trees, which are not present on the project site. The City does not have an adopted Tree Protection Ordinance relating to alteration or removal of trees on private property.

The site contains a pecan orchard and several ornamental trees, which were observed during the field survey.

3.4.4 - Regulatory Framework

Federal

Endangered Species Act

The USFWS has jurisdiction over species listed as threatened or endangered under the Endangered Species Act. Section 9 of the Endangered Species Act protects listed species from "take," which is broadly defined as actions taken to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." The Endangered Species Act protects threatened and endangered plants and animals and their critical habitat. Candidate species are those proposed for listing; these species are usually treated by resource agencies as if they were actually listed during the environmental review process. Procedures for addressing impacts to federally listed species follow two principal pathways, both of which require consultation with the USFWS, which administers the Endangered Species Act for all terrestrial species. The first pathway is the Section 10(a) incidental take permit, which applies to situations where a non-federal government entity must resolve potential adverse impacts to species protected under the Endangered Species Act. The second pathway is Section 7 consultation, which applies to projects directly undertaken by a federal agency or private projects requiring a federal permit or approval.

Migratory Bird Treaty Act

The MBTA implements international treaties between the United States and other nations devised to protect migratory birds, their parts, eggs, and nests from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit.

All migratory birds and their nests listed in the MBTA are protected from take or disturbance under the MBTA (16 United States Code [USC] § 703, *et seq*.).

Clean Water Act

The United States Army Corp of Engineers (USACE) and the United States Environmental Protection Agency (EPA) regulate the discharge of dredged or fill material into waters of the United States, including wetlands, under Section 404 of the Clean Water Act (CWA). Waters of the United States include wetlands, lakes, and rivers, streams, and their tributaries. Wetlands that fall under the jurisdiction of the USACE (referred to as jurisdictional wetlands) are defined as areas "inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." Areas not considered jurisdictional waters include, for example, non-tidal drainage and irrigation ditches excavated on dry land; artificially irrigated or created bodies such as small ponds, lakes or swimming pools; and waterfilled depressions (33 Code of Federal Regulations [CFR] 328.3; 40 CFR 230.3).

The applicants for development on any project parcel must obtain a permit from the USACE for all discharges of fill material into waters of the United States, including jurisdictional wetlands, before proceeding with a proposed action. If wetlands are jurisdictional and could be filled as part of the

proposed project, the USACE may issue either an individual permit or a general permit. Individual permits are prepared on a project-specific basis for projects that are expected to have adverse effects on the aquatic environment. General permits are pre-authorized permits issued to cover similar activities that are expected to cause only minimal individual and cumulative adverse environmental effects.

As stated in Section 401 of the CWA, "any applicant for a federal permit for activities that involve a discharge to waters of the State, shall provide the federal permitting agency a certification from the State in which the discharge is proposed that states that the discharge will comply with the applicable provisions under the Federal Clean Water Act." Therefore, before the USACE will issue a Section 404 permit, applicants must obtain a Section 401 Water Quality Certification from the RWQCB.

State

California Endangered Species Act

The State of California enacted CESA in 1984. CESA pertains to State listed endangered and threatened species. CESA requires State agencies to consult with the CDFW when preparing CEQA documents to ensure that the lead agency actions do not jeopardize the continued existence of a listed species or result in the destruction or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives available (Fish and Game Code [FGC] § 2080). CESA directs agencies to consult with the CDFW on projects or actions that could affect listed species, directs the CDFW to determine whether jeopardy would occur, and allows the CDFW to identify "reasonable and prudent alternatives" to the project consistent with conserving the species. CESA allows the CDFW to authorize exceptions to the State's prohibition against take of a listed species if the "take" of a listed species is incidental to carrying out an otherwise lawful project that has been approved under CEQA (FGC § 2081).

California Department of Fish and Game Code

Under CESA, the CDFW has the responsibility for maintaining a list of endangered and threatened species (FGC § 2070). Fish and Game Code Sections 2050 through 2098 outline the protection provided to California's rare, endangered, and threatened species. Fish and Game Code Section 2080 prohibits the taking of plants and animals listed under CESA. Fish and Game Code Section 2081 established an incidental take permit program for State listed species. The CDFW maintains a list of "candidate species," which it formally notices as being under review for addition to the list of endangered or threatened species.

In addition, the Native Plant Protection Act of 1977 (NPPA) (FGC § 1900, *et seq*.) prohibits the taking, possessing, or sale within the State of any plants with a State designation of Rare, Threatened, or Endangered (as defined by the CDFW). An exception to this prohibition in the NPPA allows landowners, under specified circumstances, to take listed plant species, provided that the owners first notify the CDFW and give the agency at least 10 days to come and retrieve (and presumably replant) the plants before they are plowed under or otherwise destroyed. Fish and Game Code Section 1913 exempts from "take" prohibition "the removal of endangered or rare native plants from a canal, lateral ditch, building site, or road, or other right of way." Project impacts to these species

are not considered significant unless the species are known to have a high potential to occur within the area of disturbance associated with construction of the proposed project.

The CDFW also maintains lists of "Species of Special Concern" that serve as species "watch lists." The CDFW has identified many Species of Special Concern. Species with this status have limited distribution or the extent of their habitats has been reduced substantially, such that their populations may be threatened. Thus, their populations are monitored, and they may receive special attention during environmental review. While they do not have statutory protection, they may be considered rare under CEQA and specific protection measures may be warranted.

Sensitive species that would qualify for listing but are not currently listed are afforded protection under CEQA. CEQA Guidelines Section 15065 (Mandatory Findings of Significance) requires that a substantial reduction in numbers of a rare or endangered species be considered a significant effect. CEQA Guidelines Section 15380 (Rare or Endangered Species) provides for the assessment of unlisted species as rare or endangered under CEQA if the species can be shown to meet the criteria for listing. Unlisted plant species on the CNPS List ranked 1A, 1B, and 2 would typically require evaluation under CEQA.

Fish and Game Code Sections 3500 to 5500 outline protection for fully protected species of mammals, birds, reptiles, amphibians, and fish. Species that are fully protected by these sections may not be taken or possessed at any time. The CDFW cannot issue permits or licenses that authorize the take of any fully protected species, except under certain circumstances such as scientific research, live capture, and relocation of such species pursuant to a permit for the protection of livestock.

Under Fish and Game Code Section 3503.5, it is unlawful to take, possess, or destroy any birds in the orders of *Falconiformes* or *Strigiformes* (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto. To comply with the requirements of 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 project study area and determine whether the proposed project would have a potentially significant impact on such species. In addition, the CDFW encourages informal consultation on any proposed project that may impact a candidate species.

Amending protections granted to non-game migratory birds in Fish and Game Code Sections 3513, the California Migratory Bird Protection Act makes unlawful the taking or possession of any migratory non-game bird designated in the federal MBTA before January 1, 2017, any additional migratory non-game bird that may be designated in the federal act after that date, or any part of those migratory non-game birds, except as provided by rules and regulations adopted by the United States Secretary of the Interior under the federal act before January 1, 2017, or subsequent rules or regulations adopted pursuant to the federal act, unless those rules or regulations are inconsistent with the Fish and Game Code.

Project-related impacts to species on the CESA endangered or threatened list would be considered significant. State listed species are fully protected under the mandates of CESA. "Take" of protected

species incidental to otherwise lawful management activities may be authorized under Fish and Game Code Section 206.591. Authorization from the CDFW would be in the form of an Incidental Take Permit.

Fish and Game Code Section 1602 requires any entity to notify the CDFW before beginning any activity that "may substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of any river, stream, or lake" or "deposit debris, waste, or other materials that could pass into any river, stream, or lake." "River, stream, or lake" includes waters that are episodic and perennial, and ephemeral streams, desert washes, and watercourses with a subsurface flow. A Lake or Streambed Alteration Agreement would be required if the CDFW determines that project activities may substantially adversely affect fish or wildlife resources through alterations to a covered body of water.

California Department of Fish and Wildlife Species of Concern

In addition to formal listing under the Endangered Species Act and CESA, certain species receive additional consideration by the CDFW and local lead agencies during the CEQA process. Species that may be considered for review are included on a list of "Species of Special Concern," developed by the CDFW. It tracks species in California whose numbers, reproductive success, or habitat may be threatened. In addition to Species of Special Concern, the CDFW identifies animals that are tracked by the CNDDB, but warrant no federal interest and no legal protection. These species are identified as California Special Animals.

California Native Plant Society

The CNPS maintains a rank of plant species that are native to California and that have low population numbers, limited distribution, or are otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Vascular Plants of California. The following identifies the definitions of the CNPS ranks:

- **Rank 1A**: Plants presumed extirpated in California and either rare or extinct elsewhere
- **Rank 1B:** Plants Rare, Threatened, or Endangered in California and elsewhere
- **Rank 2A:** Plants presumed extirpated in California but common elsewhere
- **Rank 2B:** Plants rare, threatened, or endangered in California but more common elsewhere
- **Rank 3:** Plants about which more information is needed
- **Rank 4:** Watch List: Plants of limited distribution

All plants appearing on CNPS List 1 or 2 are considered to meet the CEQA Guidelines Section 15380 criteria. While only some of the plants ranked 3 and 4 meet the definitions of threatened or endangered species, the CNPS recommends that all Rank 3 and Rank 4 plants be evaluated for consideration under CEQA.

Porter-Cologne Water Quality Control Act

The RWQCB regulates actions that would involve "discharging waste, or proposing to discharge waste, within any region that could affect the water of the State" (Water Code § 13260(a)), pursuant to provisions of the Porter-Cologne Water Quality Act. "Waters of the State" are defined as "any

surface water or groundwater, including saline waters, within the boundaries of the State" (Water Code § 13050(e)).

California Code of Regulations (Wetlands and Waters Definition)

In accordance with the Porter-Cologne Water Quality Control Act (Water Code, § 13000 *et seq*.), the California State Water Resources Control Board (State Water Board) and the RWQCB are authorized to regulate discharges of waste, which includes discharges of dredged or fill material that may affect the quality of waters of the State. As described below, waters of the State include some, but not all, features that are defined as wetlands, as well as other features, including the ocean, lakes, and rivers. The State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State[17] defines a wetland as follows: An area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation.

Under California State law, waters of the State means "any surface water or groundwater, including saline waters, within the boundaries of the State." As such, water quality laws apply to both surface water and groundwater. After the United States Supreme Court decision in *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers* (531 USC 159), the Office of Chief Counsel of the State Water Board released a legal memorandum confirming the State's jurisdiction over isolated wetlands. The memorandum stated that under the California Porter-Cologne Water Quality Control Act, discharges to wetlands and other waters of the State are subject to State regulation, and this includes isolated wetlands. In general, the State Water Board regulates discharges to isolated waters in much the same way as it does for waters of the United States, using Porter-Cologne rather than CWA authority.

The CDFW is a trustee agency that has jurisdiction under Section 1600 *et seq*. of the California Fish and Game Code. Under Sections 1602 and 1603, a private party must notify the CDFW if a project or plan will "substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by the department, or use any material from the streambeds…except when the department has been notified pursuant to Section 1601." Additionally, the CDFW may assert jurisdiction over native riparian habitat adjacent to aquatic features, including native trees over 4 inches diameter at breast height (DBH). If an existing fish or wildlife resource may be substantially adversely affected by the activity, the CDFW may propose reasonable measures that will allow protection of those resources. If the applicant agrees to these measures, the applicant may enter into an agreement with the CDFW identifying the covered activities, impacts to the CDFW jurisdictional features, and compensatory mitigation.

[17] State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State. State Water Resources Control Board. Adopted April 2, 2019. Website: https://www.waterboards.ca.gov/board_info/agendas/2019/apr/040219_10_staff_rpt_comparison_to_january_2019_032219version.pdf. Accessed January 19, 2021.

Local

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

The SJMSCP was adopted in 2000 to provide a strategy for balancing the need to conserve Open Space and the need to convert Open Space to non-Open Space uses while protecting the region's agricultural economy; preserving landowner property rights; providing for the long-term management of plant, fish and wildlife species, especially those that are currently listed, or may be listed in the future, under the Endangered Species Act or CESA; providing and maintaining multiple-use Open Spaces that contribute to the quality of life of the residents of San Joaquin County; and accommodating a growing population while minimizing costs to project applicants and society at large. The SJMSCP is administered by the San Joaquin Council of Governments (SJCOG). The SJMSCP, in accordance with Endangered Species Act 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 SJMSCP. The SJMSCP compensates for Conversions of Open Space for the following activities: urban development, mining, expansion of existing urban boundaries, nonagricultural activities occurring outside of urban boundaries, levee maintenance undertaken by the San Joaquin Area Flood Control Agency, transportation projects, school expansions, non-federal flood control projects, new parks and trails, maintenance of existing facilities for non-federal irrigation district projects, utility installation, maintenance activities, managing Preserves, and similar public agency projects.

This Draft EIR is intended to provide the information needed to evaluate the proposed project's compliance with the SJMSCP to make the SJCOG Biologist's review as efficient as possible. The project site is located within the Central Zone; Category C, Agriculture Habitat Open Spaces; Pay Zone B (Agricultural) of the SJMSCP. Adoption and implementation of the SJMSCP is intended to provide full compensation and mitigation for potential environmental impacts to plants, fish and wildlife and demonstrate compliance pursuant to the State and federal laws such as CEQA, the National Environmental Policy Act (NEPA), Planning and Zoning Law, the State Subdivision Map Act, the Porter-Cologne Act, and the Cortese-Knox Act with respect to species covered under the SJMSCP.

3.4.5 - Impacts and Mitigation Measures

Significance Criteria

The City is using Appendix G of the State CEQA Guidelines as thresholds of significance for this project. According to CEQA Guidelines Appendix G, to determine whether impacts related to biological resources are significant environmental effects, the following questions are analyzed and evaluated. Would the project:

a) Has 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 United States Fish and Wildlife Service?

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

c) Has a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?

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

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?

Approach to Analysis

FCS Biologists evaluated impacts on biological resources based on the likelihood that special-status species, sensitive habitats, wildlife corridors, and protected trees are present within the project site area, and the likely effects of construction or operation of the proposed project on these resources. For the purposes of this Draft EIR, the word "substantial" as used in the significance thresholds above is defined by the following three principal components:

- Magnitude and duration of the impact (e.g., substantial/not substantial),
- Uniqueness of the affected resource (rarity), and
- Susceptibility of the affected resource to disturbance.

Impacts Evaluation

Special-status Species

Impact BIO-1:	**The proposed project could have a substantial adverse effect, either directly or through habitat modifications, on 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 United States Fish and Wildlife Service.**

Construction

An impact to special-status plant and wildlife species would be considered significant if construction of the proposed project would result in a substantial, adverse change in any of the physical conditions through habitat modification, or direct impacts to special-status species within the project site. For purposes of this analysis, impacts would be potentially significant if implementation of the proposed project would:

- Result in direct take or habitat removal (including foraging habitat) or alteration for candidate, sensitive, or special-status species.
- Remove vegetation or damage water quality related to riparian habitat or other sensitive natural community.
- Remove, fill, or damage a federally protected wetland.

Special-status Plant Species

Special-status plant species or communities are unlikely to occur on the project site, based on multiple database searches, literature review, and on-site field survey observations. The Special-status Species Table (Appendix C) provides both the habitat description and a description of the potential for special-status plant species to occur on the project site. As detailed more fully in Appendix C, the project site does not contain suitable habitat components for any special-status plant species, including valley and foothill grasslands, native perennial bunch grass communities, or alkaline soils.

None of the six special-status plant species identified in the Special-status Species Table were observed or expected to be present on the project site. Based on FCS Biologist field surveys and the lack of suitable habitat coupled with the level of past and ongoing disturbance through tilling, mowing, weed control, irrigation, and other agricultural activities, no significant impacts to special-status plant species are expected to result from construction because no such plant species are likely to be on-site.

Special-status Wildlife Species

Eight special-status wildlife species as well as birds protected under the MBTA have the potential to occur on the project site. As discussed more fully in Appendix C and below, the special-status wildlife species potentially occurring on the project site include song sparrow, tricolored blackbird, Swainson's hawk, burrowing owl, San Joaquin kit fox, pallid bat, Townsend big-eared bat, and western mastiff bat.

Song Sparrow

Song sparrow requires dense vegetation for nesting sites, song perches, and cover for refuge from predators. Where vegetation is too short and sparse, song sparrow nests are more likely to be exposed to predators. The cattail marsh vegetation within the northeastern area of the project site within the Zuriakat parcel may provide potentially suitable nesting for song sparrow. Although unlikely, the potential for this species to nest on the project site cannot be ruled out. If the cattail marsh is proposed to be removed during the nesting season, this could result in a significant impact. Therefore, Mitigation Measure (MM) BIO-1a requires a pre-construction survey be conducted to confirm that no song sparrow nest (or nest of other protected bird species) is present. If the species is found during the pre-construction survey, a setback sufficient to avoid nest failure as determined by a qualified Biologist (typically 75 feet for this species) shall be established and maintained during the nesting season for the period encompassing nest building and continuing until fledglings leave the nest(s). The setback would apply whenever construction or other ground-disturbing activities must begin during the nesting season in the presence of nests which are known to be occupied. Setbacks shall be marked by nest buffer signs, environmentally sensitive area fencing, pin flags, and/or flagging tape to ensure maintenance of the buffer. Implementation of MM BIO-1a would reduce potential impacts to song sparrow to a less than significant level under CEQA.

Tricolored Blackbird

Emergent vegetation within the cattail marsh adjacent to California Avenue within the Zuriakat parcel represent potential nesting habitat, albeit marginal. No tricolored blackbird were observed during the site visit. The presence of a tricolored blackbird nesting colony on the project site before

or during construction is highly unlikely, but cannot be ruled out. Therefore, this constitutes a significant impact. Thus, if the cattail marsh is proposed to be removed during the nesting season, the applicants for development on any portion of the Zuriakat parcel shall implement MM BIO-1a, which requires a pre-construction survey to clear the applicable portion(s) of the project site (and setback area, if applicable) of tricolored blackbird. Additionally, minimization measures specific to tricolored blackbird nesting colonies as defined in the SJMSCP Section 5.2.4.16, and which would be imposed on project development within the Zuriakat parcel, require that a setback of 500 feet from colonial nesting areas shall be established and maintained during the nesting season for the period encompassing nest building and continuing until fledglings leave the nest(s). This setback applies whenever construction or other ground-disturbing activities must begin during the nesting season in the presence of nests which are known to be occupied. Setbacks shall be marked by nest buffer signs, environmentally sensitive area fencing, pin flags, and/or flagging tape to ensure maintenance of the buffer. Implementation of MM BIO-1a would reduce potential impacts to tricolored blackbird to a less than significant level under CEQA.

Swainson's Hawk

Swainson's hawk nests have been observed within the greater project site vicinity; the closest recorded occurrence is across Paradise Street, directly west of the project site.[18] Additionally, this species was observed during the field survey. The SJMSCP defines known or potential Swainson's hawk nest trees as trees "that hawks are known to have nested in within the past three years or trees, such as large oaks, which the hawks prefer for nesting." The large trees present around the barn and homestead sites within the project site are not known to have supported a Swainson's hawk nest in the last 3 years but could provide potential nesting opportunity for this species. It is likely that the species utilizes the agricultural fields as foraging habitat during harvesting activities as the project site provides a small-mammal prey base for birds of prey, including Swainson's hawk.

The agricultural fields include approximately 111.84 acres of alfalfa and approximately 28.75 acres of hay, both of which provide potential foraging habitat for Swainson's hawk. Project construction would result in the loss of this foraging habitat, totaling approximately 140.59 acres, which constitutes a significant impact, and therefore must be mitigated either through payment of mitigation from the SJMSCP fee, or through a separate permitting process with the applicable resource agencies during which the required mitigation ratios will be specified. MM BIO-1b details the requirements to address the loss of foraging habitat, which would reduce potential impacts to Swainson's hawk foraging habitat to a less than significant level under CEQA. MM BIO-1b also requires a pre-construction survey and further avoidance and minimization measures (if necessary), which would reduce potential impacts to nesting Swainson's hawks to a less than significant level under CEQA with mitigation.

Burrowing Owl

Multiple recorded occurrences of burrowing owl have been documented in the vicinity of the project site. Specifically, two natal burrow complexes were reported in 2008, directly along Paradise Road

[18] California Department of Fish and Wildlife (CDFW). 2020. California Natural Diversity Database (CNDDB). Website: https://wildlife.ca.gov/Data/CNDDB/Maps-and-Data. Accessed April 24, 2020.

between Skylark Way and Chrisman Road.[19] However, these areas have been developed since that time, and what used to be suitable burrowing owl habitat consists now of paved road and sidewalks, as well as compacted and managed landscaped areas. The closest record of an active nest that is still suitable habitat is located approximately 1.5 miles to the south. Two California ground squirrels were observed on the developed residential area within the project site during the field survey. While no suitable burrows or signs of presence of burrowing owls were observed during the field survey, it cannot be ruled out that a burrowing owl may occupy the project site before or during construction and therefore constitutes a significant impact.

Project development could result in the removal of potential habitat for burrowing owl. Implementation of MM BIO-1c, which requires a pre-construction survey and further avoidance and minimization measures (if necessary), would reduce potential impacts to burrowing owl to a less than significant level under CEQA.

San Joaquin Kit Fox

San Joaquin kit fox has been sporadically reported in the southern areas of Tracy, approximately 4 miles from the project site.[20] While San Joaquin kit fox is unlikely to occur on the project site and no dens or other signs of San Joaquin kit fox were observed during the field survey, it cannot be ruled out that a stray or migrating San Joaquin kit fox may be found on the project site before or during construction.

Project construction could result in the removal of potential habitat for San Joaquin kit fox. Implementation of MM BIO-1d, which requires a pre-construction survey and further avoidance and minimization measures (if necessary, based on the survey), would reduce potential impacts to San Joaquin kit fox to a less than significant level under CEQA.

Nesting Birds

The trees along the southwestern boundary and trees located on-site and within the immediate vicinity may provide suitable nesting habitat for birds protected under the MBTA and other special-status birds covered by Fish and Game Code Section 3503.5, and/or CESA.

Potential direct and indirect impacts could occur to resident and migratory species during project construction, which would render the project temporarily unsuitable for birds because of the noise, vibrations, and increased activity levels associated with various construction activities. These activities could potentially subject birds to risk of death or injury, and they are likely to avoid using the area until such construction activities have dissipated or ceased. Relocation, in turn, could cause hunger or stress among individual birds by displacing them into adjacent territories belonging to other individuals. Accordingly, this constitutes a significant impact requiring mitigation.

Furthermore, construction activities that occur during the nesting season (generally February 1 to August 31) could disturb nesting sites for birds protected by the MBTA and Fish and Game Code.

[19] California Department of Fish and Wildlife (CDFW). 2020. California Natural Diversity Database (CNDDB). Website: https://wildlife.ca.gov/Data/CNDDB/Maps-and-Data. Accessed April 24, 2020.

[20] Ibid.

No action is necessary if no active nests are found or if construction occurs during the nonbreeding season (generally September 1 through January 31).

Implementation of MM BIO-1e, which requires the relevant applicant(s) for development on any areas within the project site to each conduct a pre-construction survey and implement further avoidance and minimization measures (if necessary and required by the survey), would reduce potential impacts to nesting birds to a less than significant level under CEQA. (Note that potential impacts to song sparrow, tricolored blackbird, and Swainson's hawk are addressed separately above. Mitigation measures for these species are included separately and thus are not included in MM BIO-1e).

Roosting Bats

Buildings located within the southwestern portion of the project site may provide suitable nesting habitat for bats. Section 2000 and 4150 of the California Fish and Wildlife Code states that it unlawful to take or possess a number of species, including bats, without a license or permit as required by Section 3007. Potential direct and indirect impacts could occur to roosting bats during project construction due to removal of potential roosting habitat. These activities could potentially subject bats to risk of death or injury, and they are likely to avoid using the area until such construction activities have dissipated or ceased. Relocation, in turn, could cause hunger or stress among individual bats by displacing them into adjacent territories belonging to other individuals. Accordingly, this constitutes a significant impact requiring mitigation.

Implementation of MM BIO-1f, which requires the relevant applicant(s) for development on any areas within the project site to each conduct a pre-construction survey and further avoidance and minimization measures (if necessary), would reduce potential impacts to roosting bats to a less than significant level under CEQA.

Operation

An impact to special-status plant and wildlife species would be considered significant if operation of the proposed project resulted in a substantial, adverse change in ambient noise. The project site is currently surrounded by industrial developments and is situated in a semi-urban landscape with high amounts of traffic from local industrial operations, which create a baseline of fairly substantial ambient noise. As discussed in more detail in Section 12, Noise, the proposed project would increase traffic on local roadways and would introduce stationary noise sources through the operation of new industrial facilities; however, noise emitted from the operation of the proposed project would be required to adhere to applicable established standards and would not result in a significant increase in the ambient environment. Therefore, project implementation would not constitute a significant impact to wildlife species from operational noise including traffic noise.

Bird Strike

There is a potential impact related to bird mortality caused from collisions with the glass windows on the buildings. Research on bird mortality caused by window collision remains in its early stages, and researchers have yet to agree on a collision rate metric. Additionally, there are several factors impacting the probability of birds colliding with glass windows, such as window space, opacity, glare, and other weather conditions. The proposed project would consist of several industrial buildings and related improvements, and the reflective window material used would not pose a greater hazard

than any other typical industrial buildings in the project vicinity or in the City. Window elements would not be expansive and would be predominately located at building corners or inset into the buildings. Therefore, impacts to birds associated with glass windows would be less than significant.

As such, all operational impacts would be considered less than significant.

Level of Significance Before Mitigation

Potentially Significant Impact

Mitigation Measures

MM BIO-1a Song Sparrow and Tricolored Blackbird Mitigation

Implementation of the following avoidance and minimization measures would avoid or minimize potential effects to song sparrow and tricolored blackbird as a result of project implementation within the Zuriakat parcel in and adjacent to the project site. These measures shall be implemented for construction work that occurs during the nesting season (February 1 through August 31):

- If construction or habitat removal is proposed during the breeding/nesting season (typically February 1 through August 31), a qualified Biologist shall conduct pre-construction surveys for song sparrow and tricolored blackbird within potential nesting habitat of the construction area, (special attention should be paid to the cattail marsh within the Zuriakat parcel) including a 500-foot survey buffer for tricolored blackbird and a 75-foot survey buffer for song sparrow, no more than 7 days prior to the start of ground-disturbing activities in the construction area. If no active nests are detected within the construction area on the project site or within the relevant buffer survey area, then no additional measures are required.
- If an active nest is located during pre-construction surveys, the California Department of Fish and Wildlife (CDFW) (as appropriate) shall be notified (as appropriate) regarding the status of the nest. A setback of 500 feet (for tricolored blackbird) and 75 feet (for song sparrow) shall be established and maintained during the nesting season for the period encompassing nest building and continuing until fledglings leave nests. This setback applies whenever construction or other ground-disturbing activities must begin during the nesting season in the presence of nests which are known to be occupied. Furthermore, construction activities shall be restricted in the construction area as necessary to avoid disturbance of the nest until it is abandoned, or a qualified Biologist deems disturbance potential to be minimal. Restrictions shall include consultation with a qualified Biologist to determine appropriate buffer zones or alteration of the construction schedule in the relevant area.
  - A qualified Biologist shall delineate the buffer using nest buffer signs, environmentally sensitive area fencing, pin flags, and/or flagging tape. The buffer zone shall be maintained around the active nest site(s) until the young have fledged and are foraging independently.

MM BIO-1b Swainson's Hawk

Foraging: Prior to any activities that would result in ground disturbance to the project site, the relevant applicant(s) for the subject development on any portion of the project site shall each ensure **c**overage of the relevant portion(s) of the project site under the SJMSCP and pay the applicable fee purchase adequate mitigation through the SJMSCP for 140.59 acres of potential foraging habitat (recommended) or alternatively provide applicant-responsible compensatory mitigation at a 1:1 ratio (such as procurement of credits through a mitigation bank or dedicated of a conservation easement).

Nesting: The following measures shall be implemented for construction work during the nesting season (February 1 through August 31):

- Implementation of the following avoidance and minimization measures would avoid or minimize potential effects to Swainson's hawk as a result of project implementation and adjacent to the project site. These measures shall be implemented for construction work that occurs during the nesting season (February 1 through August 31):
  - If construction or habitat removal is proposed during the breeding/nesting season (typically February 1 through August 31), a qualified Biologist shall conduct pre-construction surveys for Swainson's hawk within the construction area, (special attention should be paid to trees with past recorded occurrences) including a 0.5- mile survey buffer, no more than 7 days prior to the start of ground-disturbing activities in the construction area. If no active nests are detected within the construction area site or within the buffer survey area, then no additional measures are required.
  - If active Swainson's hawk nests are found within the construction area or the 0.5-mile survey buffer of the project site, a qualified Biologist shall determine what nest avoidance buffers may be necessary so that construction-related activities do not cause nest abandonment. The avoidance buffer shall be submitted to the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) for approval. The qualified Biologist shall monitor construction activities to ensure construction activities do not result in adverse effects to the nest, fledglings, or adults. The Biologist shall submit a memorandum documenting construction compliance to the appropriate agencies.

MM BIO-1c Burrowing Owl

- A qualified Biologist shall conduct a pre-construction survey no later than 30 days prior to commencement of any ground-disturbing construction activities on the construction area. The survey shall be conducted in accordance with the *Staff report on Burrowing Owl Mitigation.*[21] All suitable habitats within the construction area site and adjacent buffer (within 500 feet) shall be surveyed. If no burrowing owl are detected during the surveys, then no additional measures are required.
- If pre-construction surveys during the breeding season (February 1- August 31) detect active burrows within the construction area or near the adjacent buffer survey area site, a qualified Biologist shall establish and delineate an appropriate buffer zone around the nest until the breeding season is over as determined by the Biologist. Buffer areas shall be established using the guidelines within the *Staff report on Burrowing Owl Mitigation*.
- If pre-construction surveys detect active burrows during the nonbreeding season (September 1- January 31) the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) allows for eviction or passive relocation of owls. A passive relocation plan shall be prepared and submitted to SJMSCP for approval.

MM BIO-1d San Joaquin Kit Fox

Measures to protect San Joaquin kit fox shall consist of the following:

- A qualified Biologist shall conduct a pre-construction survey of the construction area and a 200-foot buffer, between 14 and 30 days prior to the commencement of ground disturbance. If the surveys do not identify any San Joaquin kit fox activity or locate any potential dens, then no further measures are necessary.
- If the survey identifies potential dens (potential dens are defined as burrows at least 4 inches in diameter that open up within 2 feet), den entrances shall be dusted for 3 calendar days to register track of any San Joaquin kit fox present. If no San Joaquin kit fox activity is identified, potential dens may be destroyed. If San Joaquin kit fox activity is identified, then dens shall be monitored by a qualified Biologist to determine whether occupation is by an adult fox only or is a natal den (natal dens usually have multiple openings).
- If the den is occupied by an adult only, the den may be destroyed when the adult fox has moved or is temporarily absent. If the den is a natal den, a buffer zone of 250 feet shall be maintained around the den until the Biologist determines that the den has been vacated. Where San Joaquin kit fox are identified, the provisions of the United States Fish and Wildlife Service (USFWS) published *Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior to or During*

[21] California Department of Fish and Wildlife (CDFW). 2012. Staff Report on Burrowing Owl Mitigation. March 7. Website: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83843&inline=true. Accessed on April 29, 2020.

Ground Disturbance[22] shall apply (except that pre-construction survey protocols shall remain as established in this paragraph). These standards include provisions for educating construction workers regarding the San Joaquin kit fox and keeping heavy equipment operating at safe speeds.

MM BIO-1e Migratory Birds

- To prevent significant impacts to Migratory Bird Treaty Act (MBTA)-protected birds, nesting raptors, and their nests, removal of trees shall be limited to only those necessary to feasibly construct the proposed project as shown on the individual development plans approved by the City pursuant to the mapping and/or development review process.
- If any tree removal is necessary, then it should occur outside the nesting season between September 1 through January 31 to the extent feasible. If trees cannot feasibly be removed outside the nesting season, pre-construction surveys shall be conducted no more than 7 days prior to tree removal to verify the absence of active nests.
- If an active nest is located during pre-construction surveys, the United States Fish and Wildlife Service (USFWS) and/or the California Department of Fish and Wildlife (CDFW) (as appropriate) shall be notified regarding the status of the nest. Construction activities shall be restricted in the construction area as necessary to avoid disturbance of the nest until it is abandoned, or the agencies deem disturbance potential to be minimal. Restrictions shall consist of the include establishment of exclusion zones (no ingress of personnel or equipment at a minimum radius of 100 feet around an active raptor nest and an appropriate radius around an active migratory bird nest depending on the species) or alteration of the construction schedule.
- A qualified Biologist shall delineate the buffer using nest buffer signs, environmentally sensitive area fencing, pin flags, and/or flagging tape. The buffer zone shall be maintained around the active nest site(s) until the young have fledged and are foraging independently.

MM BIO-1f Roosting Bats

- A qualified wildlife Biologist shall conduct surveys for special-status bats during the appropriate time of day to maximize detectability to determine whether bat species are roosting near the construction area no less than 7 days and no more than 14 days prior to beginning ground disturbance and/or construction. Survey methodology may include visual surveys of bats (e.g., observation of bats during foraging period), inspection for suitable habitat, bat sign (e.g., guano), or use of ultrasonic detectors (Anabat, etc.).

[22] United States Fish and Wildlife Service (USFWS). 1999. Standardized recommendations for protection of the San Joaquin Kit Fox Prior to or during ground disturbance. Website: https://www.fws.gov/ventura/docs/species/protocols/sjkf/sanjoaquinkitfox_protection.pdf. Accessed April 29, 2020.

- Visual surveys shall include trees within 0.25 mile of project construction activities. Not more than two weeks prior to building demolition, the Tracy Alliance parcel applicants for development on any project parcel, shall ensure that a qualified Biologist (i.e., one familiar with the identification of bats and signs of bats) survey buildings proposed for demolition for the presence of roosting bats or evidence of bats. If no roosting bats or evidence of bats are found in the structure, demolition may proceed. If the Biologist determines or presumes bats are present (if there are site access issues or structural safety concerns), the Biologist shall exclude the bats from suitable spaces by installing one-way exclusion devices. After the bats vacate the space, the Biologist shall close off the space to prevent recolonization. Building demolition of the subject structure shall only commence after the Biologist verifies seven to 10 days later that the exclusion methods have successfully prevented bats from returning. To avoid significant impacts on non-volant (i.e., nonflying) bats, the Biologist shall only conduct bat exclusion and eviction from May 1 through October 1. Exclusion efforts shall also be restricted during periods of sensitive activity (e.g., during hibernation or while females in maternity colonies are nursing young).

Level of Significance After Mitigation

Less Than Significant Impact With Mitigation Incorporated

Sensitive Natural Communities

Impact BIO-2:	**The proposed project would not have a substantial adverse effect on riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or United States Fish and Wildlife Service.**

Construction

An impact to sensitive natural communities or riparian habitat would be considered significant if the construction of the proposed project resulted in a substantial, adverse change in any of the physical conditions (such as removal of vegetation or fill within riparian habitat) within the area affected by development.

As noted above, a small portion of the project site contains approximately 0.07 acre of cattail marsh in the channel along California Avenue, on the northern boundary of the project site within the Zuriakat parcel. The majority of the cattails consisted of broadleaf cattails; this vegetation type is not classified as a sensitive natural community, but rather a California Natural Community by the CDFW (Type 52.050.04– Typha [*latifolia, angustifolia]*) and is not applicable to this resource category. This community is discussed in further detail below in Impact BIO-3.

The project site does not contain any riparian habitat or sensitive natural communities identified in local or regional plans, policies, or regulations, by the CDFW or USFWS. As such, impacts would be less than significant under CEQA.

Operation

The project site does not contain any riparian habitat or other sensitive natural communities. As such, all operational impacts would be considered less than significant.

Level of Significance

Less Than Significant Impact. No Mitigation Required.

Wetlands

Impact BIO-3:	**The proposed project could have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.**

Construction

Impacts to State or federally protected wetlands would be considered significant if the proposed operations resulted in a substantial, adverse change in any of the physical conditions (i.e., fill) of wetlands.

A preliminary assessment of potentially jurisdictional features was conducted as part of the literature review and reconnaissance-level survey for the site. There are aquatic resources located within the project site in the form of irrigation/drainage channels (approximately 10,344 linear feet) and a potential ditch wetland/cattail marsh (approximately 0.07 acre) located on the Zuriakat parcel.

Ditch Wetland/Cattail Marsh

The ditch wetland/cattail marsh located on the Zuriakat parcel along California Avenue is likely formed due to the drainage patterns created as a result of surrounding agricultural production. This potential Zuriakat parcel wetland feature contained standing water during the field visit, contained dense stands of broadleaf cattail (rated an obligate wetland plant by the USACE and a California Natural Community), and supports Northern Pacific tree frogs. This potentially jurisdictional wetland feature is approximately 300 feet long by 8 feet wide.

Irrigation/Drainage Channels

The irrigation/drainage channels appear to have a potential hydrological connection to the San Joaquin River, a traditional navigable water of the United States. The man-made channels have all been excavated within upland habitat for the purpose of on-site agricultural irrigation and drainage. These channels are mostly devoid of hydrophytic vegetation, are actively managed, and provide little to no habitat value to special-status species. This potential aquatic feature is approximately 10,344 linear feet. For the foregoing reasons, these features are generally not considered jurisdictional.

The determination whether an aquatic feature is regulated pursuant to CWA Section 404 can only be made by the USACE following a formal delineation of aquatic resources and proposed jurisdictional determination. Similarly, the RWQCB intends to follow jurisdictional exclusions of the USACE; however, California Water Code Section 13050(a) defines “waters of the State” broadly to include “any surface water or groundwater, including saline waters, within the boundaries of the State,” and the determination whether impacts to parts of the irrigation/drainage ditches and/or the cattail marsh on-site are regulated as waters of the State is be made by the RWQCB. If the proposed project

construction would result in the placement of fill that would potentially result in impacts to these aquatic resources, then implementation of MM BIO-3 would reduce potential impacts to a less than significant level under CEQA.

Operation

Impacts related to the project's potential effect on State or federally protected wetlands are limited to construction impacts. As such, all operational impacts would be considered less than significant.

Level of Significance Before Mitigation

Potentially Significant Impact

Mitigation Measures

MM BIO-3 Conduct Delineation of Potentially Jurisdictional Aquatic Resources (Channels and Wetlands)

The applicant(s) for development on any project parcel shall complete a formal jurisdictional delineation to document and quantify the full extent of potentially jurisdictional waters for the relevant project parcel(s) in coordination with the applicable regulatory agencies. The applicant(s) for development on any project parcel shall also coordinate, to the extent required under applicable laws and regulations, with the applicable regulatory agencies (United States Army Corps of Engineers [USACE], Regional Water Quality Control Board [RWQCB], and/or California Department of Fish and Wildlife [CDFW]) to determine whether the irrigation/drainage channels and/or cattail marsh on the project site is protected under Section 404 and 401 of the Clean Water Act (CWA) and/or Section 1602 of the California Fish and Game Code.

Obtain CWA Sections 401 and 404 Permits Prior to Construction

- Prior to the fill of any potentially jurisdictional waters within the project site, the relevant project applicant(s) for the subject project parcel(s) shall consult with the USACE and Regional Water Quality Control Board, to the extent required under applicable laws and regulations, to determine the extent, if at all, that waters of the United States and State may be impacted by the proposed project.
- If required, the relevant applicant(s) for development of the subject project parcel(s) shall obtain a Section 404 CWA permit for impacts to waters of the United States. That same applicant, for development of the subject project parcel(s), will also obtain a Section 401 Water Quality Certification from the RWQCB, if required. Any such required permit and certification shall be obtained prior to issuance of grading permits for the implementation of the individual development proposal on the subject project parcel(s).
- The applicant(s) for development on any project parcel shall design the project to result in no net loss of functions and values of waters of the United States and State by incorporating impact avoidance, impact minimization, and/or

compensatory mitigation for the impact, as set forth in the subject Section 404 permit and 401 water quality certification.

- Compensatory mitigation may consist of (1) obtaining credits from a mitigation bank; (2) making a payment to an in-lieu fee program that would conduct wetland, stream, or other aquatic resource restoration, creation, enhancement, or preservation activities; and/or (3) providing compensatory mitigation through an aquatic resource restoration, establishment, enhancement, and/or preservation activity. This final type of compensatory mitigation may be provided at or adjacent to the impact site (i.e., on-site mitigation) or at another location, usually within the same watershed as the permitted impact (i.e., off-site mitigation). This project/permit applicant shall retains responsibility for the implementation and success of the mitigation approach.

Obtain Approval of and File Notification of Streambed Alteration Agreement Prior to Construction

The applicant(s) for development on any project parcel shall ensure that the cattail marsh is not obstructed and human intrusion into the area is minimized. In compliance with Section 1600 of the California Fish and Game Code, the relevant applicant(s) of an individual development proposal within the project site shall obtain approval and file a notification of a Streambed Alteration Agreement prior to conducting any construction activities within irrigation/drainage channels that qualify as streams under CDFW jurisdiction (i.e., those having bed and bank and at least periodical flow) if and to the extent required under applicable laws and regulations. Those same applicant(s) shall implement all mitigation measures imposed by the CDFW related to the subject Streambed Alteration Agreement, which may include but not be limited to the implementation of erosion and bank stabilization measures, riparian habitat enhancement, and/or restoration and revegetation of the stream corridor habitat at no less than a 1:1 ratio, as determined by the CDFW.

Level of Significance After Mitigation

Less Than Significant Impact With Mitigation Incorporated

Fish and Wildlife Movement Corridors

Impact BIO-4:	**The proposed project would not substantially interfere with the movement of 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.**

Construction

An impact to fish or wildlife movement would be considered significant if the proposed construction or operation resulted in a substantial, adverse change in any of the physical conditions (such as the interruption of a channel or terrestrial movement corridor) within the area affected by the proposed

project. Fish or wildlife movement that have the potential to be impacted are discussed in detail below.

FCS Biologists evaluated the project site for evidence of a wildlife movement corridor during the biological resources survey. As noted above, the site is surrounded by industrial developments and is situated in a semi-urban landscape with high amounts of traffic from local industrial operations. Further, I-205 separates the site from the closest wildlife corridor to the north, I-5 and Business I-205 preclude non-volant wildlife movement from the east and southeast. The project site is not part of or within a wildlife movement corridor and, for this reason, construction-related impacts would be less than significant under CEQA.

Operation

As noted above, the project site is not part of or within a wildlife movement corridor. As such, all operational impacts would be considered less than significant.

Level of Significance

Less Than Significant Impact

Local Biological Resources Policies/Ordinances Consistency

Impact BIO-5:	**The proposed project would not conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.**

Construction and Operation

The project site contains a pecan orchard as well as ornamental trees but no street trees. As noted in Section 3.4.3, the City of Tracy regulates the alteration or removal street trees, but does not have a Tree Protection Ordinance related to private property. Therefore, because the project site does not contain any street trees, the proposed project would not conflict with any tree preservation policy or ordinance. Additionally, the proposed project would not conflict with General Plan policies or ordinances protecting biological resources. As such, no impacts related to construction would occur and no mitigation is necessary.

Level of Significance

No Impact

Habitat/Natural Community Conservation Plan Consistency

Impact BIO-6:	**The proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan.**

Construction

The project site is located within the SJMSCP Planning Area, and the City is a signatory to the SJMSCP, and the proposed project would be required to adhere to the relevant provisions of the SJMSCP. Participation in the SJMSCP ensures that potential impacts for covered species are mitigated below a level of significance in compliance with CEQA as well as the Endangered Species Act and CESA. Therefore, the proposed project would be subject to compliance to the SJMSCP, which may

include payment of development fees for the conversion of lands that may provide habitat for covered special-status species as well as implementation of other identified mitigation measures. Mitigation for loss of open space (agricultural field) would be achieved via the payment of habitat fees, or by the payment of endowment fees with in-lieu lands (conservation easements). Implementation of mitigation required under the SJMSCP and minimization measures (as identified above in Impact BIO-1) in conjunction with required compliance with the SJMSCP would reduce specific impacts to listed species to a less than significant level under CEQA.

Operation

Any potential conflicts with the SJMSCP would be limited to the construction phase of the proposed project and would be mitigated appropriately. Therefore, no operational impacts related to conflicts with the SJMSCP would occur.

Level of Significance

Less Than Significant Impact

3.4.6 - Cumulative Impacts

The general geographic scope of the cumulative biological resources analysis is concentrated south of I-205 and north of West Linne Road within the City of Tracy's SOI as project activity would only affect the surrounding project area. Cumulative projects in the geographic scope of the biological resources analysis include active agricultural fields consisting of alfalfa, almond tree orchards, and hay; associated agricultural and a few rural residential structures and irrigation/drainage channels are interspersed throughout the project site. Additionally, a ruderal/disturbed area is located within the southwestern corner of the project site along Grant Road Line that shows evidence of previous development but does not have current development. The project's immediate vicinity consists of agricultural and industrial development. project site and immediate vicinity

Special-status Wildlife and Plant Species

Planned developments listed in Chapter 3, Environmental Impact Analysis, Table 3-1 and shown in Exhibit 3-1, are predominantly located in areas that have already been built out or are located within highly fragmented habitats with limited potential to support special-status wildlife and plant species. The cumulative geographic context is partially developed and partially agricultural land, and there is a low likelihood of special-status wildlife and plants occurring within the cumulative project areas due to past urban development.

The following species have the potential to occur within the cumulative project areas: song sparrow, tricolored blackbird, Swainson's hawk, burrowing owl, San Joaquin kit fox, pallid bat, Townsend big-eared bat, and western mastiff bat. Additionally, nesting birds protected by the MBTA and/or California Fish and Game Code also have the potential to occur within the cumulative project areas. As described in the Regulatory Setting section, numerous laws and regulations are in place to protect biological resources within the cumulative project area, including, but not limited to, CESA, FESA, and the CWA. Future projects within the cumulative geographic context, would be required to comply with applicable federal, State, and local laws, regulations, and policies and all applicable permitting requirements of the regulatory and oversight agencies intended to address potential

impacts on biological resources. Standard pre-construction surveys and, if necessary, avoidance procedures would be required for cumulative projects with the potential to impact special-status wildlife species (see, e.g., MM BIO-1a through MM BIO-1f). Because cumulative development would be required to comply with the above requirements, as well as General Plan and Municipal Code requirements (as described in the Regulatory Framework section), cumulative biological impacts would be less than significant.

Moreover, the proposed project's incremental contribution to these less than significant cumulative impacts would not be significant with adherence to the mitigation measures related to special-status wildlife species identified above and compliance with other applicable standards and requirements under the comprehensive regulatory framework. Therefore, the proposed project would have a less than significant incremental contribution to cumulative impacts to biological resources.

Sensitive Natural Communities and Wetlands

There are various aquatic resources that provide habitat for riparian species of flora and fauna within the cumulative project areas. The Great Valley Riparian Woodland communities lie north of I-205, along the Old River and Tom Paine Slough riparian zones. Corral Hollow Creek flows northeast and is located immediately east of I-580. These aquatic resources are largely found outside the cumulative project areas, which are concentrated south of I-205 and north of West Linne Road within the City of Tracy's SOI as projects activities would only affect the surrounding project areas. The majority of cumulative developments have been designed to address future growth problems and minimize developmental impacts to sensitive natural communities by designing projects, to the extent feasible, to occur in previously developed or highly disturbed areas that lack significant sensitive natural communities.

Within the cumulative project areas, development would not directly and significantly impact sensitive natural communities and/or the aquatic resources outlined above because they are largely sited in previously developed or highly disturbed areas. Furthermore, cumulative projects with the potential to impact sensitive natural communities (including wetlands or riparian habitat) would be required to consult with the applicable regulatory agencies, quantify their potential impacts in a formal jurisdictional delineation, and mitigate accordingly as may be required pursuant to applicable laws and regulations (see, e.g., MM BIO-3). As such, there is a less than significant cumulative impact. Moreover, as explained in Impact BIO-2 and Impact BIO-3, the proposed project would implement mitigation measures to address potential and the proposed project's contribution to the cumulative impact would be less than significant. Additionally, the proposed project's contribution to the less than significant cumulative impact would not be cumulatively considerable. The proposed project, in conjunction with other cumulative projects, would result in a less than significant cumulative impact related to sensitive natural communities and associated habitat.

Local Tree Policies or Ordinances or Other Policies to Protect Biological Resources

The City of Tracy regulates the alteration or removal street trees but as previously stated, does not have a Tree Protection Ordinance related to private property. While other cumulative projects may result in the removal of street trees, these projects would be governed by the applicable local protection ordinance including relevant General Plan policies, which includes permitting and

mitigation requirements. Therefore, development of the proposed project and any related development of private property would not result in any conflicts with local tree policies or ordinances protecting trees or other biological resources. As such, there is a less than significant cumulative impact. Additionally, the proposed project's contribution to the less than significant cumulative impact would not be cumulatively considerable.

Fish and Wildlife Movement Corridors

The cumulative project areas contain a variety of aquatic resources that act as potential movement corridors for fish and wildlife, such as Corral Hollow Creek and Tom Paine Slough. Any future development that occurs within the cumulative project areas would have to take into account the potential impact to these corridors and mitigate as required under applicable laws and regulations.

The site is surrounded by industrial developments and is situated in a semi-urban landscape with high amounts of traffic from local industrial operations. Further, I-205 separates the site from the closest wildlife corridor to the north, I-5 and Business I-205 preclude non-volant wildlife movement from the east and southeast. The project site is not part of or within a wildlife movement corridor and construction-related impacts would be less than significant under CEQA. Therefore, the proposed project's contribution to the less than significant cumulative impact related to fish, and wildlife movement would not be cumulatively considerable.

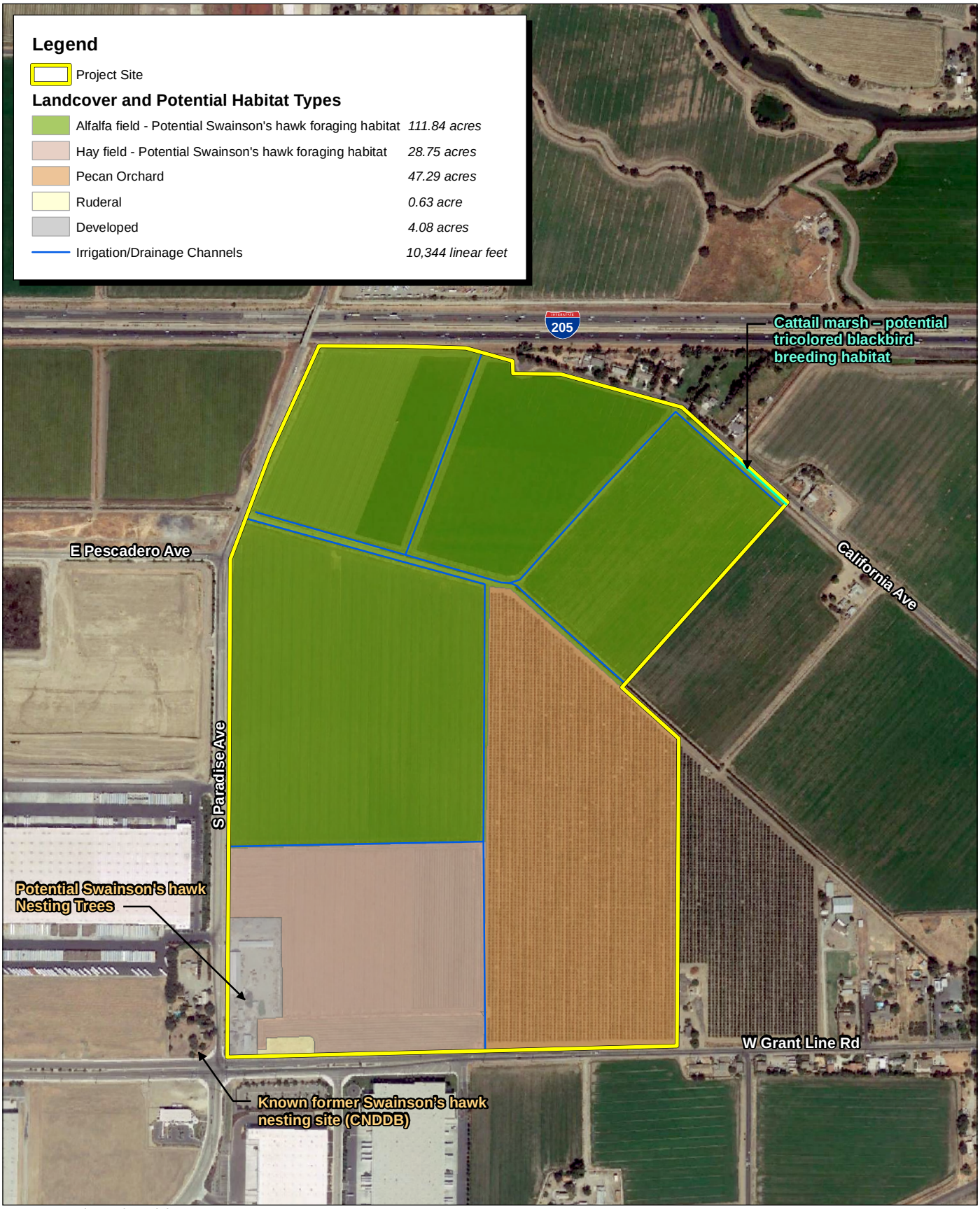
Habitat and Natural Community Conservation Plan Consistency

The proposed project, in addition to other cumulative projects, would be subject to compliance to the SJMSCP, which may include payment of development fees for conversion of lands that may provide habitat for covered special-status species and implementation of other identified mitigation measures under the SJMSCP. Compliance by the proposed project and other cumulative projects located within the cumulative project areas to the SJMSCP would fully mitigate any potentially significant impacts in this regard. As such, there is a less than significant cumulative impact. Additionally, the proposed project's contribution to the less than significant cumulative impact would not be cumulatively considerable given that it also would be required to comply with all applicable provisions and mitigation requirements under the SJMSCP. Therefore, cumulative projects in conjunction with the proposed project would not conflict with the SJMSCP. As such, cumulative impacts would be less than significant.

Level of Cumulative Significance

Less Than Significant Impact With Mitigation Incorporated

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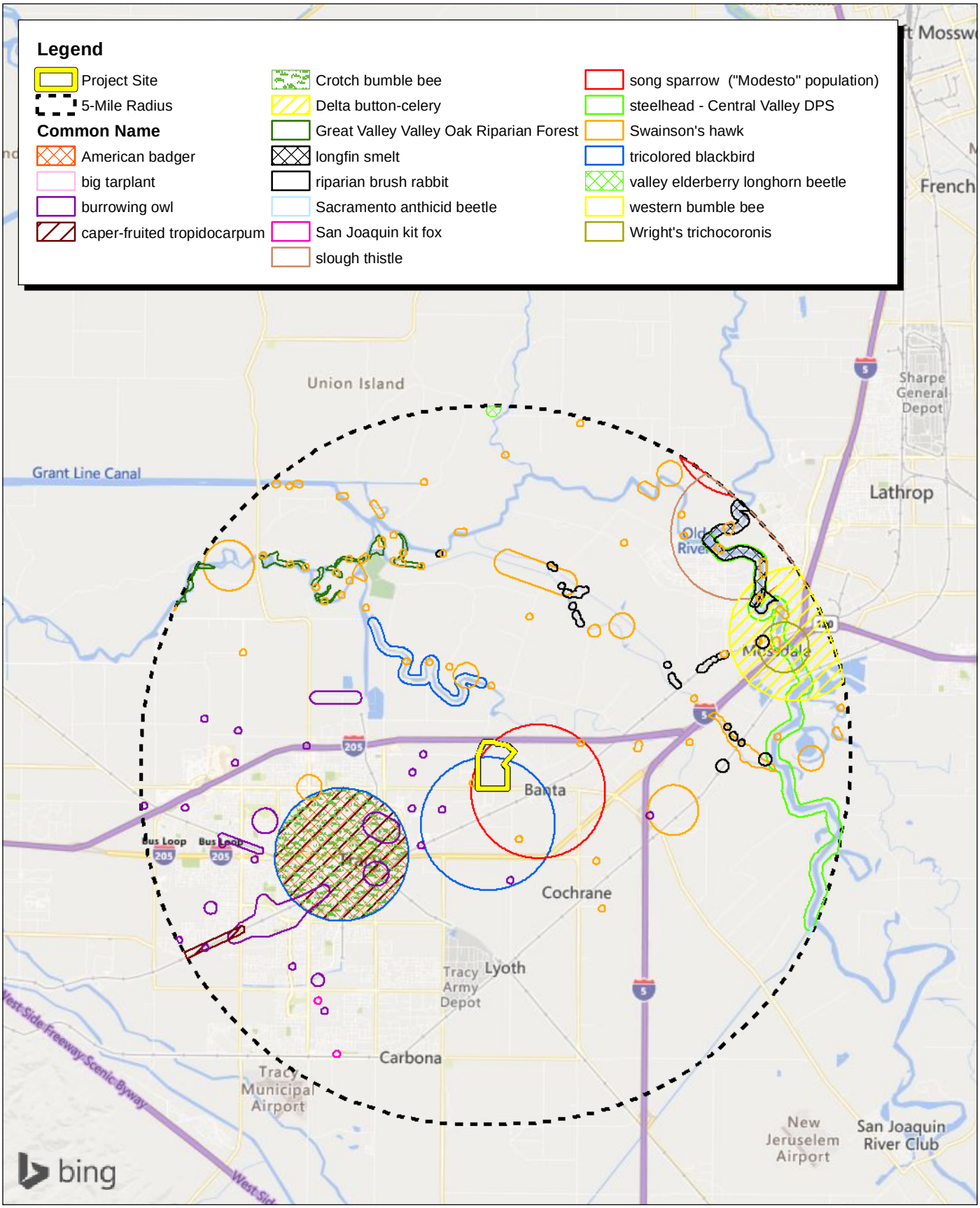
Source: Google Earth Aerial Imagery, August 2018.

FIRSTCARBON SOLUTIONS™

690 345 0 690 Feet

Exhibit 3.4-1
Biological Resources

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Source: Bing Street Imagery. California Natural Diversity Database (CNDDB), April 2020.

FIRSTCARBON SOLUTIONS™

2 1 0 2 Miles

Exhibit 3.4-2
CNDDB-Recorded Occurrences Within 5-Mile Radius

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3.5 - Cultural Resources

3.5.1 - Introduction

This section describes the existing environmental setting for cultural resources setting and the potential impacts on cultural resources on the project site and its surrounding area that may result from project implementation. The study area includes the project site and the 0.5-mile search radius around the project site. The descriptions and analysis in this section are based, in part, on information provided by the Native American Heritage Commission (NAHC), a records search of the Sacred Lands File, archival research, and a pedestrian survey, as presented in the Phase I Cultural Resource Assessment (Phase I CRA) that FirstCarbon Solutions (FCS) prepared for this project (see Appendix D). The recommendations provided in the Phase I CRA to address potential project impacts on cultural resources during ground-disturbing activities are incorporated into this section where appropriate.

3.5.2 - Environmental Setting

Cultural Resources Components

The term "cultural resources" encompasses historic resources, archaeological resources, and burial sites, which are generally defined as follows:

- **Historic Resources:** Historic resources are associated with the recent past. In California, historic resources are typically associated with the Spanish, Mexican, and American periods in the State's history and are generally less than 200 years old. Historic resources often take the form of buildings, structures, and other elements of the built environment.
- **Archaeological Resources:** Archaeology is the study of artifacts and material culture with the aim of understanding human activities and cultures in the past. Archaeological resources may be associated with prehistoric indigenous cultures as well as historic periods.
- **Burial Sites and Cemeteries:** Burial sites and cemeteries are formal or informal locations where human remains have been interred.

Overall Cultural Setting

Following is a brief overview of the prehistory, ethnography, and historic background, providing a context in which to understand the background and relevance of sites found in the vicinity of the project site. This section is not intended to be a comprehensive review of any specific resources in the project vicinity; rather, it serves as a general overview. Further details can be found in ethnographic studies, mission records, and major published sources.[1,2,3,4,5,6,7]

[1] Kroeber, A.L. 1925. Handbook of the Indians of California. Bulletin 78. Bureau of American Ethnology. Washington, D.C. Smithsonian Institution.
[2] Beardsley, R.K. 1948. "Cultural Sequences in Central California Archaeology." American Antiquity 14:1-28.
[3] Bennyhoff, J. 1950. Californian Fish Spears and Harpoons. Berkeley: University of California Anthropological Records 9(4):295-338.
[4] Chartkoff J.L. and K.K. Chartkoff. 1984. The Archaeology of California. Menlo Park: Stanford University Press.
[5] Moratto, M.J. 1984. California Archaeology. San Diego: Academic Press.
[6] Heizer, R. F., ed. 1978. Handbook of North American Indians, Vol. 8: California. Washington, D.C. Smithsonian Institute.
[7] Fredrickson, D.A. 1973. Early Cultures of the North Coast Ranges, California. Unpublished Ph.D. dissertation, Department of Anthropology, University of California, Davis.

Prehistory and Ethnographic Background

The Northern San Joaquin Valley remains one of the least known ethnographic areas of California. Although little record of their culture has survived, research indicates Native Americans occupied portions of northern San Joaquin County for over 10,000 years.

Early archaeological investigations in Central California were conducted at sites located in the Sacramento-San Joaquin Delta region. The first published account documents investigations in the Lodi and Stockton area.[8] The initial archaeological reports typically contained descriptive narratives, with more systematic approaches sponsored by Sacramento Junior College in the 1930s. At the same time, University of California at Berkeley excavated several sites in the lower Sacramento Valley and Delta region, which resulted in recognizing archaeological site patterns based on variations of inter-site assemblages. Research during the 1930s identified temporal periods in Central California prehistory and provided an initial chronological sequence.[9,10] In 1939, Lillard noted that each cultural period led directly to the next and that influences spread from the Delta region to other regions in Central California.[11] In the late 1940s and early 1950s, Beardsley documented similarities in artifacts among sites in the San Francisco Bay region and the Delta and refined his findings into a cultural model that ultimately became known as the Central California Taxonomic System (CCTS). This system proposed a uniform, linear sequence of cultural succession.[12] The CCTS system was challenged by Gerow, whose work looked at radiocarbon dating to show that Early and Middle Horizon sites were not subsequent developments but, at least partially, contemporaneous.[13,14,15]

To address some of the flaws in the CCTS system, Fredrickson introduced a revision that incorporated a system of spatial and cultural integrative units.[16] Fredrickson separated cultural, temporal, and spatial units from each other and assigned them to six chronological periods: Paleo-Indian (12,000 to 8000 Before Present [BP]); Lower, Middle and Upper Archaic (8000 BP to 1500 BP), and Emergent (Upper and Lower, 1500 BP to historic period). The suggested temporal ranges are similar to earlier horizons, which are broad cultural units that can be arranged in a temporal sequence.[17] In addition, Fredrickson defined several patterns—a general way of life shared within a specific geographical region. These patterns include:

- Windmiller Pattern or Early Horizon (5000 to 3000 BP)
- Berkeley Pattern or Middle Horizon (3000 to 1500 BP)
- Augustine Pattern or Late Horizon (1500 BP to historic period)

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8 Schenck, W.E., and E.J. Dawson. 1929. Archaeology of the Northern San Joaquin Valley. American Archaeology and Ethnology 25:286–413.

9 Lillard, J.B. and W.K. Purves. 1936. The Archaeology of the Deer Creek-Cosumnes Area, Sacramento Co., California. Sacramento. Sacramento Junior College, Department of Anthropology Bulletin 1.

10 Lillard, J.B., R.F. Heizer, and F. Fenenga. 1939. An Introduction to the Archaeology of Central California. Sacramento Junior College, Department of Anthropology, Bulletin 2. Sacramento.

11 Lillard, J.B., R.F. Heizer, and F. Fenenga. 1939. An Introduction to the Archaeology of Central California. Sacramento Junior College, Department of Anthropology, Bulletin 2. Sacramento.

12 Beardsley, R.K. 1948. "Cultural Sequences in Central California Archaeology." American Antiquity 14:1-28.

13 Gerow, B.A. 1954. The Problem of Cultural Sequences in Central California Archaeology. Paper presented at the Annual Meeting of the American Association for the Advancement of Sciences.

14 Gerow, B.A. 1974. Comments on Fredrickson's Cultural Diversity. The Journal of California Anthropology 1(2):239–246.

15 Gerow, B.A., with R. Force. 1968. An Analysis of the University Village Complex with a Reappraisal of Central California Archaeology. Stanford University Press. Stanford., California.

16 Fredrickson, D.A. 1973. Early Cultures of the North Coast Ranges, California. Unpublished Ph.D. dissertation, Department of Anthropology, University of California, Davis.

17 Moratto, M.J. 1984. California Archaeology. San Diego: Academic Press.

Brief descriptions of these temporal ranges and their unique characteristics follow.

Windmiller Pattern or Early Horizon (5000 to 3000 BP)

Characterized by the Windmiller Pattern, the Early Horizon was centered in the Cosumnes district of the Delta and emphasized hunting rather than gathering, as evidenced by the abundance of projectile points in relation to plant processing tools. Additionally, atlatl, dart, and spear technologies typically included stemmed projectile points of slate and chert but minimal obsidian. The large variety of projectile point types and faunal remains suggests exploitation of numerous types of terrestrial and aquatic species.[18,19] Burials occurred in cemeteries and intra-village graves. These burials typically were ventrally extended, although some dorsal extensions are known with a westerly orientation and a high number of grave goods. Trade networks focused on acquisition of ornamental and ceremonial objects in finished form rather than on raw material. The presence of artifacts made of exotic materials such as quartz, obsidian, and shell indicate an extensive trade network that may represent the arrival of Utian populations into Central California. Also indicative of this period are rectangular Haliotis and Olivella shell beads, and charmstones that usually were perforated.

Berkeley Pattern or Middle Horizon (3000 to 1500 BP)

The Middle Horizon is characterized by the Berkeley Pattern, which displays considerable changes from the Early Horizon. This period exhibited a strong milling technology represented by minimally shaped cobble mortars and pestles, although metates and manos were still used. Dart and atlatl technologies during this period were characterized by non-stemmed projectile points made primarily of obsidian. Fredrickson suggests that the Berkeley Pattern marked the eastward expansion of Miwok groups from the San Francisco Bay Area.[20] Compared with the Early Horizon, there is a higher proportion of grinding implements at this time, implying an emphasis on plant resources rather than on hunting. Typical burials occurred within the village with flexed positions, variable cardinal orientation, and some cremations. As noted by Lillard, the practice of spreading ground ochre over the burial was common at this time.[21] Grave goods during this period are generally sparse and typically include only utilitarian items and a few ornamental objects. However, objects such as charmstones, quartz crystals, and bone whistles occasionally were present, which suggest the religious or ceremonial significance of the individual.[22] During this period, larger populations are suggested by the number and depth of sites compared with the Windmiller Pattern. According to Fredrickson, the Berkeley Pattern reflects gradual expansion or assimilation of different populations rather than sudden population replacement and a gradual shift in economic emphasis.[23]

[18] Bennyhoff, J. 1950. Californian Fish Spears and Harpoons. University of California Anthropological Records 9(4):295–338.

[19] Ragir, S.R. 1972. The Early Horizon in Central California Prehistory. Contributions of the University of California Archaeological Research Facility 15. Berkeley, CA.

[20] Fredrickson, D.A. 1973. Early Cultures of the North Coast Ranges, California. Unpublished Ph.D. dissertation, Department of Anthropology, University of California, Davis.

[21] Lillard, J.B., R.F. Heizer, and F. Fenenga. 1939. An Introduction to the Archaeology of Central California. Sacramento Junior College, Department of Anthropology, Bulletin 2. Sacramento.

[22] Hughes, R.E. (editor). 1994. Toward a New Taxonomic Framework for Central California Archaeology: Essays by James A. Bennyhoff and David A. Fredrickson. Assembled and edited by Richard E. Hughes. Contributions of the University of California No. 52, Archaeological Research Facility, Berkeley, CA.

[23] Fredrickson, D.A. 1973. Early Cultures of the North Coast Ranges, California. Unpublished Ph.D. dissertation, Department of Anthropology, University of California, Davis.

Augustine Pattern or Late Horizon (1500 BP to Historic Period)

The Late Horizon is characterized by the Augustine Pattern, which represents a shift in the general subsistence pattern. Changes include the introduction of bow and arrow technology; and most importantly, acorns became the predominant food resource. Trade systems expanded to include raw resources as well as finished products. There are more baked clay artifacts and extensive use of Haliotis ornaments of many elaborate shapes and forms. Burial patterns retained the use of flexed burials with variable orientation, but there was a reduction in the use of ochre and widespread evidence of cremation.[24] Judging from the number and types of grave goods associated with the two types of burials, cremation seems to have been reserved for individuals of higher status, whereas other individuals were buried in flexed positions. Research indicates that Augustine Pattern represents expansion of the Wintuan population from the north, which resulted in combining new traits with those established during the Berkeley Pattern.[25]

Central California research has expanded from an emphasis on defining chronological and cultural units to a more comprehensive look at settlement and subsistence systems. This shift is illustrated by the early use of burials to identify mortuary assemblages and more recent research using osteological data to determine the health of prehistoric populations.[26] Although debate continues over a single model or sequence for Central California, the general framework consisting of three temporal/cultural units is generally accepted, although the identification of regional and local variation is a major goal of current archaeological research.

Northern Valley Yokuts

Prior to European American contact, the Tracy area was inhabited by the Northern Valley Yokuts, whose range extended from the Calaveras River to the southern extent of the San Joaquin River. The Northern Valley Yokuts were one of three major subgroups that occupied much of the San Joaquin Valley: the Northern Valley, the Foothill, and the Southern Valley Yokuts. Each of these ethnolinguistic groups was composed of autonomous, culturally, and linguistically related tribes or tribelets. Ethnographic evidence suggests the project site was part of the Northern Valley Yokuts territory.

The Northern Valley Yokuts, who lived along the San Joaquin River and its tributaries and within the vicinity of the project site, are one of the least known of the California Indian groups. This is due to the almost complete destruction of their tribal life in the early 19th Century. What can be gleaned from the diaries and reports of Spanish soldiers and priests is that fish, waterfowl, and acorns were important food resources for the Northern Valley Yokuts. The local rivers and their tule marshes contained salmon, sturgeon, perch, suckers, and pike, which were caught using nets, weighted with stone sinkers and bone harpoons. Waterfowl, such as geese, ducks, and other aquatic birds, were abundant in the marshes and probably played a major role in the Northern Valley Yokuts subsistence base.[27] Dogs were domesticated and may have been raised for food, a taboo to some tribes but not

[24] Moratto, M.J. 1984. California Archaeology. San Diego. Academic Press.
[25] Johnson, J.J. 1976. Archaeological Investigations at the Blodgett Site (CA-SAC-267), Sloughhouse Locality, California. Report to the U.S. National Parks Service, Western Regional Office, Tucson, AZ.
[26] Dickel, D.N., P. D. Schulz, and H.M. McHenry. 1984. Central California: Prehistoric Subsistence Changes and Health. In Paleopathology at the Origins of Agriculture, edited by Mark Nathan Cohen and George J. Armelagos, pp. 439–462. Academic Press, Inc., Orlando, FL.
[27] Wallace, W.J. 1978. Northern Valley Yokuts. In Handbook of North American Indians, Vol. 8: California, edited by R.F. Heizer, 448–461. Washington, DC. Smithsonian Institution.

the Yokuts.[28,29] Wild plant resources, especially acorns, were of prime importance and in a good year, a valley oak could produce 300 to 500 pounds of acorns, which were then ground into meal and cooked into porridge. Tule reed roots were likewise gathered and ground into meal that was traditionally served as porridge.[30]

Stone mortars and pestles, milling stones, hammers, choppers, and projectile points were manufactured from local rock sources. Notably, although obsidian was imported into the area, it was used infrequently for tools or weapons. Bone tools, particularly awls, were used in basket manufacture. Most villages were built near rivers on elevated land to avoid flooding during heavy rains or spring runoff from the Sierras. Archaeological excavations in Merced and Fresno counties indicate that houses were single-family dwellings, probably made with an oval framework of lightweight poles covered by mats of tule reeds. Hard-packed earthen floors 25 to 40 feet in diameter were constructed several feet below ground level. Communities typically contained a sweathouse and sometimes a large ceremonial structure. The size of the Yokuts communities is uncertain, but estimates indicate that the principal settlements contained 200–250 inhabitants.[31]

Several northern Yokut tribelets lived near what is now Tracy: including the Chulamni to the north, and the Hoyima to the southeast. The Chulamni tribelet built their villages near Tracy, along the banks of the Old River and San Joaquin River, and along creeks in the Diablo Range. The largest Chulamni village site near Tracy was named "Pescadero" by the Spanish during one of their first expeditions in 1810 and 1811.

Contact with Europeans was particularly devastating for the Northern Valley Yokuts. This group was adversely impacted by missionization in the early 1800s, European diseases, and the influx of miners and settlers as a result of the 1849 gold rush. Kroeber observed that their habitat in the open river valley left them especially vulnerable, compared to mountain dwellers, to "the full brunt of civilization."[32]

Contact with the Spanish commenced early in the 19th Century and normally consisted of sporadic visits by small exploration parties. However, between 1805 and the 1820s, Franciscan priests from the coastal missions began recruiting converts from further inland, and a large portion of the Yokuts population was taken to various missions in San José, Santa Clara, Soledad, San Juan Bautista, and San Antonio. Many neophytes deserted and returned to their homes, but were sought and brought back by Spanish soldiers. A decade after the Mexican government claimed independence from Spain in 1822, the missions were converted into parish churches, and many Native Americans were released and returned to their former territory, though not necessarily to the specific location from which they came.

After the American conquest of California in 1846, the remaining Northern Valley Yokuts were driven off their land by miners heading south, farmers pursuing the locally rich soil, and the construction of

[28] Kroeber, A.L., 1925. Handbook of the Indians of California (No. 78). US Government Printing Office.Kyle, D.E., Rensch, H.E., Rensch, E.G., Hoover, M.B. and Abeloe, W., 2002. Historic spots in California. Stanford University Press.
[29] Wallace, W.J. 1978. Northern Valley Yokuts. In Handbook of North American Indians, Vol. 8: California, edited by R.F. Heizer, 448–461. Washington, DC. Smithsonian Institution.
[30] Ibid.
[31] Ibid.
[32] Kroeber, A.L., 1925. Handbook of the Indians of California (No. 78). US Government Printing Office.Kyle, D.E., Rensch, H.E., Rensch, E.G., Hoover, M.B. and Abeloe, W., 2002. Historic spots in California. Stanford University Press.

various railroads. By the time scholars were interested in gathering information on California native groups, there were few people left to provide descriptions of native life before European contact.[33]

Regional Historic Background

Spanish Period (1769-1821)

The formalization of Spanish routes in California were established by Father Junípero Serra and Gaspar de Portolà in 1769, in what was known as the Portolà Expedition. Although the Portolà party were not the first Europeans nor the first people to pass through the region, it was their observations and discoveries that formalized the routes and locations of the Mission System and facilitate trade and travel through California.[34] The route used by Portolà was further explored in detail by Lieutenant Colonel Juan Bautista de Anza and Father Pedro Font during the Anza Expedition that lasted from 1775-1776. The Anza Expedition was considered pivotal as it helped establish practical relationships with the natives, who at the time were revolting in San Diego, and help further explore and map Monterey and the San Francisco Bay Area.[35] The region that would become San Joaquin Valley was periodically visited by Franciscan friars, scouting the area for mission sites, but it was a military expedition led by Gabriel Moraga in September and October of 1806 that fully mapped out the area. The expedition started in San Juan Bautista and extended to the San Joaquin Plain. Once there, Moraga traversed several tributaries that flow to the San Joaquin River and discovered and named the Merced River. Moraga additionally came upon the Tuolumne, Stanislaus, and Mokelumne Rivers. Moraga's Expedition took him from the foot of the Sierras and the Rancherias between Kings River and Kern River. In 1808, Moraga traveled to Stockton and headed east to scouting sites for future missions. Moraga's discoveries and mapping of the region contributed to the knowledge of the geography and ethnography of the area. This information served pivotal to Father Narciso Duran, Father Ramón Abella and Lieutenant Luis Antonio Argüello, who followed the San Joaquin River at least as far as the Stockton Channel in 1817, meticulously mapping the area for future mission establishments.[36,37] The diary kept by Father Duran helped illustrate how the region appeared prior to colonization as well as initial contact with the Yokut people.

The Mexican Period (1821-1848)

The Mexican revolt against Spain in 1822 and the secularization of the missions in 1834 changed land ownership patterns in California. The Spanish philosophy of government was directed at the founding of presidios, missions, and secular towns with the land held by the Crown, whereas the later Mexican policy stressed individual ownership of the land. Following Mexico's independence from Spain in 1822, the vast mission lands were granted to private citizens. The last of the mission land holdings were relinquished in 1845, which led the way for the large ranchos common to California in the mid-1800s.

[33] Wallace, W.J. 1978. Northern Valley Yokuts. In Handbook of North American Indians, Vol. 8: California, edited by R.F. Heizer, 448–461. Washington, DC. Smithsonian Institution.

[34] Farquhar, F.P., 1928. Spanish discovery of the Sierra Nevada. San Francisco, Calif.: Sierra Club, Bulletin, XIII, (1), pp.54-61.

[35] Hyslop, S.G., 2019. Contest for California: From Spanish Colonization to the American Conquest (Vol. 2). University of Oklahoma Press.

[36] Kyle, D.E., Rensch, H.E., Rensch, E.G., Hoover, M.B. and Abeloe, W. 2002. Historic spots in California. Stanford University Press.

[37] Farquhar, F.P., 1928. Spanish discovery of the Sierra Nevada. San Francisco, Calif.: Sierra Club, Bulletin, XIII, (1), pp.54-61.

However, the constant threat of Russian invasion, the illegal squatting of American immigrants and growing threat of rebellion from the mission Indians prevented the region from achieving socio-political stability.[38] The growing tensions between Mexicans and American settlers led to the Bear Flag Revolt of 1846 led by U.S. Army Captain John C. Fremont and Ezekiel Merritt against Mexican General Mariano Vallejo who was attempting to bring aid to the Mexican governor of California in an attempt to suppress the growing wave of support for an American coup of California.[39] The rebellion concluded with the takeover of Sonoma, thus weakening the little control that Mexico had over Alta California and paving the way for the United States to seize control of the Pacific Coast shortly thereafter.[40]

By 1846, on the eve of the U.S.–Mexican War (1846 to 1848), the estimated population of California was 8,000 non-natives and 10,000 Native Americans. However, these estimates have been debated. Cook suggests the Native American population was 100,000 in 1850; the U.S. Census of 1880 reports the Native American population as 20,385.[41]

City of Tracy, San Joaquin County

San Joaquin County was incorporated on January 4, 1850 as one of the California's original 27 counties after acquiring statehood. San Joaquin County was named after the river that runs through the entire San Joaquin Valley. The county was formed from four land grants: El Pescadero, Campo de los Franceses, Los Moquelemos, and the Thompson Rancho, in addition to land that belonged to the State.[42] The county seat is in Stockton and has remained there since the inception of the City in 1850. In addition to Stockton, San Joaquin County includes the incorporated cities of Escalon, Lathrop, Lodi, Manteca, Ripon, and Tracy.[43] San Joaquin County is 1,391.32 square miles and has a population of 762,148 residents.[44]

The City of Tracy has deep roots with the railroad industry, as the community was founded after Southern Pacific Railroad established a new connecting rail line from "Oakland around the shores of San Francisco Bay, through Port Costa and Martinez, to connect with the Central Pacific line east of the Livermore hills and Altamont Pass."[45] Following the completion of the connecting rail line on September 8, 1878, the community of Tracy was formed and named after Southern Pacific Railroad executive, Lathrop J. Tracy.

Tracy grew rapidly with the addition of businesses associated with the rail line. Two hotels, Ludwig Hotel and Tracy Hotel, prompted residents from nearby towns to settle in the newly established community that was quickly becoming the railroad and commercial center of Tulare Township. This was followed by the relocation of the railroad headquarters on March 1, 1894 from Lathrop to Tracy, in addition, all railroad equipment, building and eating house accompanied the headquarters in the

[38] Branch, L.C., 1881. History of Stanislaus County, California: With Illustrations Descriptive of Its Scenery, Farms, Residences, Public Buildings with Biographical Sketches of Prominent Citizens. Elliott & Moore.
[39] National Park Service. 2015. Website: https://www.nps.gov/index.htm. Accessed October 20, 2020.
[40] National Park Service. 2015. Website: https://www.nps.gov/index.htm. Accessed October 20, 2020.
[41] Cook, S.F., 1976. The population of the California Indians, 1769-1970. University of California Press.
[42] Tinkham, G.H., 1923. History of San Joaquin County, California: With Biographical Sketches of the Leading Men and Women of the County who Have Been Identified with Its Growth and Development from the Early Days to the Present. Historic Record Company
[43] California State Association of Counties. 2014. Website: https://www.counties.org. Accessed November 18, 2020
[44] United States Census Bureau. 2019a. Website: https://www.census.gov/quickfacts/sanjoaquincountycalifornia. Accessed November 18, 2020.
[45] Tracy Historical Museum. 2018. Website: https://tracymuseum.org/tracy-history/. Accessed November 18, 2020

move. Toward the end of the 1800s, the community of Tracy experienced an agricultural boom following the construction of the Delta levee that provided irrigation to the crops that were rapidly becoming the main source of revenue for community. In 1910, Tracy was officially incorporated and continued to flourish agriculturally after its first irrigation district was established in 1915.[46]

Tracy remained a relatively small agricultural town well into the mid-20th century; however, with population growth in the Bay Area in the 1970s, Tracy saw in influx of people, taking advantage of its real estate while maintaining relatively close proximity the Bay Area. As of 2019, the City of Tracy boasted a population of about 94,740.[47]

Records Searches and Pedestrian Survey to Identify Existing Cultural Resources

Central Coastal Information Center

On April 2, 2020, a record search for the project site and a 0.5-mile radius[48] beyond the project boundaries was conducted at the Central California Information Center (CCIC) located at California State University, Stanislaus. The current inventories of the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), the California Historical Landmarks (CHL) list, the California Points of Historical Interest (CPHI) list, and the Built Environment Resources Directory (BERD) for San Joaquin County were also reviewed to determine the existence of previously documented local historical resources.

The results from the CCIC indicate that five cultural resources have been recorded on-site or within 0.5 mile of the project site. The prehistoric resource (P-39-000258) and the historic resources (P-39-000002, P-39-000072, P-39-004373 and P-39-005104) are all located outside the project site (Table 3.5-1). The historic resource P-39-000072 is adjacent to and outside of the project site to the southwest, while historic resource P39-004373 is located along the southern boundary of the site, adjacent to and outside of the project site. Resources P-39-005104, P-39-000002, and P-39-000258 are not located in close proximity to areas of proposed development. All identified resources would remain unaffected by the project, as currently designed, because none of the resources are located within the project boundary. In addition, three area-specific survey reports are on file with the CCIC for the search radius; none of which are within the project site boundary indicating that the project site has not previously been surveyed for cultural resources (Table 3.5-2).

Table 3.5-1: Recorded Cultural Resources On-site or within a 0.50-mile Radius of the Project Site

Site Number	Resource Name/Description	Date Recorded
P-39-000002	Southern Pacific Railroad in San Joaquin County: AH02 Foundations/structure pads, AH04 Privies/dumps/trash scatters, AH07 Roads/trails/railroad grades, AH11 Walls/fences, HP11 Engineering structure.	1993, 1994, 1997, 2001, 2002, 2003, 2005, 2006, 2007, 2008, 2010, 2011, 2012, 2018

[46] City of Tracy. 2020. Website: https://www.cityoftracy.org/our-city/about-us/tracy-history. Accessed August 20, 2021.
[47] United States Census Bureau. 2019b. Website: https://www.census.gov/quickfacts/tracycitycalifornia. Accessed November 18, 2020.
[48] A 0.5-mile radius is a standard search radius used for California Historic Resources Information System requests.

Site Number	Resource Name/Description	Date Recorded
P-39-000072	Ender Ranch, 6811 and 6821 Grant Line Road, Tracy: HP33 Farm/ranch.	1996
P-39-000258	Barr's Banta, Site 39: AP02 Lithic scatter.	1955
P-39-004373	Grant Line Road, Lincoln Highway; TRWP-25: HP37 Highway/trail.	2003
P-39-005104	Valley/Banta Schools: HP15 Educational building.	1991
Source: Central California Information Center (CCIC) Record Search. April 2, 2020.		

Table 3.5-2: Previous Investigations within 0.5-mile of the Project Site

Report No.	Report Title/Project Focus	Author	Date
SJ-02748	A Cultural Resource Survey of the Northeast Industrial Property, Tracy, California.	John W. Foster	1996
SJ-04182*	Historic Property Survey Report–Negative Findings, Tracy Widening Stage II and III, 10-SJ-205, P.M. R3.0/R13.6, EA 300160.	B. Wickstrom	2001
SJ-04182	Department of Transportation Negative Archaeological Survey Report 10-SJO-205 P.M. R3.0/R13.6 EA 300160.	B. Wickstrom	2000
SJ-04182	Department of Transportation First Supplemental Archaeological Survey Report–Negative 10-SJO-205 R3.0/R13.6 EA 300160.	B. Wickstrom	2000
SJ-06625	Cultural Resources Survey, South County Surface Water Project, San Joaquin County, California, South San Joaquin Irrigation District.	ASI Archaeology and Cultural Resource Management	1998
Notes: * SJ-04182 contains two supplemental reports written in 2000. Source: Central California Information Center (CCIC) Record Search. April 2, 2020.			

Historic Aerials

A review of 10 historic aerials depicting the project site and vicinity from 1967 until 2016 indicate that beginning in 1967, the project site and the surrounding general land areas were developed for agricultural purposes along with a residential property within the southwest corner of the site.[49] The 1968 image depicts residential development southeast of the project site, and the expansion of dairy buildings in the southwest corner. Sometime between 1968 and 1982, Interstate 205 (I-205) was constructed, and the area became more urbanized; residential and commercial development was prevalent throughout the surrounding area. Aerials from 1993 to 2016 exhibit the continued agricultural uses of the project site, along with expansion and the continued use of the dairy farm.

[49] Historic Aerials. 2020. Website: https://www.historicaerials.com/viewer. Accessed: March 31, 2020.

Cultural Resources Pedestrian Survey

Prior to the current pedestrian survey, readily available historical United States Geological Survey (USGS) topographic maps, selected historical aerial photographs (at approximately 10- to 15-year intervals) and historical fire insurance maps produced by the Sanborn Map Company were reviewed to evaluate land development and obtain information concerning the history of development on and near the site. These records show undeveloped land with an unimproved road near the northeast corner (1914-1916); followed by the development of multiple farm structures near the southwestern corner and agricultural row crops, irrigation ditches, and/or vacant land on the remainder of the property (1937-2016).

On April 9, 2020, FCS Senior Archaeologist, Dr. Dana DePietro, conducted a pedestrian survey for unrecorded cultural resources within the Tracy Alliance, Suvik Farms, and Zuriakat project parcels that comprise the project site. The survey began in the north of the project boundary and moved south, using east–west transects spaced at approximately 5-meter intervals within the project boundary, where possible.

Visibility of native soils was very poor overall, given that approximately 90 percent of the Tracy Alliance and Zuriakat parcels were covered with thick vegetation. Soil visibility was better in the Suvik Farms parcels (70 percent visibility) due to the rowed almond orchard that occupies this portion of the site. Soils in these sections of poor visibility were intermittently inspected using a hand trowel and were largely composed of light brown (7.5YR 5/3) loam with low clay content. The soils were interspersed with small to large (3 to 30 cm) stones primarily composed of schist and chert.

Survey conditions were documented using digital photographs and field notes. During the survey, Dr. DePietro examined all areas of the exposed ground surface for prehistoric artifacts (e.g., fire-affected rock, milling tools, flaked stone tools, tool-making debris, ceramics), soil discoloration and depressions that might indicate the presence of a cultural midden, faunal and human osteological remains, and features indicative of the former presence of structures or buildings (e.g., postholes, standing exterior walls, foundations) or historic debris (e.g., glass, metal, ceramics). Particular attention was paid to the Mattos Dairy Farm complex located in the southwest corner of the project site, which was found to be over 50 years old. An evaluation of the Mattos Dairy Farm complex's historic significance and eligibility for listing on the CRHR follows below.

Architectural and Historic Resources Assessment

The Mattos Dairy Farm complex is located in the southwest corner of the project site and contains buildings and structures over 50 years old that have not been evaluated for historic significance. Properties over 50 years in age are considered potentially eligible for listing in the NRHP, CRHR, or local listing and, consequently, could be considered historic resources under California Environmental Quality Act (CEQA) Guidelines. The Mattos Dairy Farm complex was evaluated relative to the following four CRHR eligibility criteria, which are in turn based on NRHP Standards A–D.

- **Criterion 1: Event.** It is associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States.

- **Criterion 2: Person.** It is associated with the lives of persons important to local, California, or national history.
- **Criterion 3: Architecture.** It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values.
- **Criterion 4: Information Potential.** It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

Mattos Dairy Farm Complex Descriptions

While a review of historic aerials and topographic maps shows the existence of farm structures at the project site as early as 1937, many of those structures have been demolished or replaced over the years. The majority of structures that are present date to the 1950s and 1960s. These i structures consist of a cattle storm shed, hay barn, calf barn and attached wooden shed, a machine shop/garage, a residence and garage located at 6599 West Grant Line Road, and a milk barn. A second residence is also located on the site at 6735 West Grant Line Road, which appears to date to the 1940s. A brief description of each structural element follows:

Cattle Storm Shed

This structure is a circa 1960s, symmetrical, rectangular-shaped, wood framed, cattle storm shed built using wooden-pier and beam construction. The shed is approximately 5,700 square feet in size, is open-walled on all sides, and is currently used to house machinery. The structure, which is in moderate to poor condition, is accessed via openings on the shorter east and west façades. The structure has a concrete and asphalt foundation, and is topped by a low-pitched, open-gabled roof. The roof is clad in corrugated sheet metal on all sides, with open rafters.

Calf Barn and Wooden Shed

This conjoined structure consists of a circa 1950s, symmetrical, rectangular-shaped, calf barn, and connected wooden shed attached to the barn's western façade. The barn is constructed of low cinderblock walls topped with wooden joists, windows, and shiplap siding similar to that used in the shed's construction. The barn and shed are a total of approximately 2,850 square feet in size, closed-walled on all sides, and are currently empty. The conjoined structure is in poor condition due to apparent fire and disrepair and is accessed via doors on the west and north façades. The structure has a concrete and asphalt foundation, and is topped by two low-pitched, open-gabled roofs. The roofs are clad in wooden shingles with open rafters.

Machine Shop/Garage

This structure is a circa 1950s, symmetrical, rectangular-shaped, wood framed, machine shop/garage built using wooden shiplap construction. The shop/garage is approximately 1,400 square feet in size and is currently used to house machinery. The structure, which is in moderate to poor condition, is primarily accessed via two rolling garage doors on the right of the western façade. The structure has a concrete and asphalt foundation, and is topped by a low-pitched, open-gabled roof. The roof is clad in corrugated sheet metal on all sides, with open rafters.

The Residence at 6599 West Grant Line Road

This structure is a circa 1950, 1-story, asymmetrical, square-shaped, minimal traditional-style single-family residence and detached garage. The 900-square-foot building, which is in poor condition and has been abandoned, is accessed by a small, two-stair, small concrete porch leading to a single door on the building's western façade. The building has a concrete foundation, light green stucco exterior, and a low-pitched cross-hipped roof with moderately sized eaves that wrap around the entire structure. The roof is clad in tan-gray composition shingling, and the rafters are semi-enclosed with plywood planking. The building's windows vary in size, shape, and placement, but are primarily aluminum-framed, rectangular-shaped, and double-hung sash-style. The property has almost no landscaping as the concrete foundation extends to the street, with the exception of a large tree growing to the left of the entrance on the eastern façade. An unattached, symmetrical two-car garage of identical construction is situated immediately south of the residence. The original windows and roof appear to have been replaced, but no other major exterior alterations were noted.

The Residence at 6735 West Grant Line Road

This structure is a circa 1940, 1-story, asymmetrical, rectangular-shaped, minimal traditional-style single-family residence. The 1,700-square-foot building, which is in moderate to poor condition, is accessed by a small, single-stair, enclosed concrete porch leading to a single door on the building's southern façade. The building has a concrete foundation, light green stucco exterior, and a low-pitched cross-hipped roof with small-sized eaves that wrap around the entire structure. The roof is clad in tan-gray composition shingling, and the rafters are semi-enclosed with plywood planking. The building's windows vary in size, shape, and placement, but are primarily aluminum-framed, rectangular-shaped, and double-hung sash-style. The property has minimal landscaping a lawn extending south and two trees growing to the left and right of the main entrance on the southern façade. The original windows and roof appear to have been replaced, but no other major exterior alterations were noted.

Milk Barn

This conjoined structure consists of a circa 1950s, symmetrical, rectangular milk barn and connected square, cinderblock loading-shed attached to the barn's southern façade. The barn is constructed of high cinderblock walls identical to use in the shed's construction, with regularly spaced aluminum open-faced windows along the barn's eastern and western sides. The conjoined barn and shed are a total of approximately 2,900 square feet in size, in fair condition, and are accessed primarily via doors on the north and south façades. The structure has a concrete and asphalt foundation that takes the form of a small, raised loading dock running along the southern façade of the shed. The shed is flat roofed and clad in tar-paper, while the barn is topped with an aluminum low-pitched, open-gabled roof.

NRHP, CRHR, and Local Historical Listing Evaluation

The existing Mattos Dairy Farm complex is part of the overall development and expansion of the agriculture industry following the establishment of the Central Pacific Railroad and the incorporation of the City in the early 20th century. The dairy industry continued to thrive in Tracy despite the decline of the railroad in the 1950s and 1960s and continues to be an important part of the regional economy to this day. The subject property is part of that process of expansion and growth, but does

not meet Criterion A: Event, as there are examples of many similar and better-known dairy farms built during this time in the greater Tracy area.

On November 26, 2018, Terracon Consultants interviewed Mr. Mike Mattos of Mike Mattos Farms, the current tenant of 6599 West Grant Line Road, while conducting site reconnaissance and by telephone. Mr. Mattos indicated that he has been familiar with the site for approximately 54 years and indicated the site was formerly owned by his grandparents, John and Virginia Mattos, who operated a dairy farm on the site from the 1950s through the early 1970s. On November 5, 2018, Terracon interviewed Ms. Deanna Morales, who indicated she is the current tenant of 6735 West Grant Line Road and indicated she has been living on the site for approximately 5 years. Additional research conducted at the City of Tracy Clerk's Office, San Joaquin County Community Development Department, Polk's City Directory, Haines Criss-Cross Directory, and Environmental Data Resources, Inc. (EDR) Digital Archive City directories revealed the names Manuel Madruga, Michael J. Mattos, and Christine Lopez are also associated with the history of the property. The relative absence of these individuals from published historical accounts of the City of Tracy or the California Digital Newspaper Archive (CDNA) indicate that they did not achieve a level of historic importance to be considered eligible for the CRHR or local historical listing, and thus the property does not meet the criteria for Criterion B: Person.

Under Criterion C: Architecture, the buildings and structures, built by unknown architects, display many features common to industrial dairy farms of the day, and residences of the traditional minimalist style: asymmetrical, shallow to medium pitched hipped roofs with no eaves, a small entry porch with simple pillars or columns, and a simple rectangular floorplan, often with small ells. These buildings possess few if any ornamental details and are standard, undistinguished examples of construction design and techniques from their respective periods. Furthermore, several buildings are in a poor state of repair, or have been renovated in recent years with modifications made to the original design. As such, none of the buildings appear eligible for listing under Criteria C.

Criterion D: Information Potential, is most often used to evaluate archaeological sites or buildings that employ unusual building techniques. There is no evidence that any of the buildings or structures in question exhibit any unusual construction features or have the ability to contribute significant information to the overall history of the City of Tracy.

Therefore, the Mattos Dairy Farm complex does not appear to meet any of the criteria for historic and/or architectural significance required for listing on the NRHP or CRHR. The structures that make up the complex also do not appear to possess sufficient artistic merit or historical association to meet a local standard for historical importance. The structures as a group do not contribute to the general character of the neighborhood through a unified historical period or architectural theme and thus cannot be considered as a contributing structure to a potential historic district. As such, the Mattos Dairy Farm complex should not be considered historical resources under CEQA. No analysis of integrity is required where the property fails to meet all four criteria.

Summary of Existing Cultural Resources at the Project Site

Historic Architectural Resources

Based on the architectural and historic resources assessment provided above, no known historic architectural resources are located within the project site boundaries.

Archaeological Resources

No known archaeological sites or burial sites are located within the project site boundaries. No known prehistoric or historic resources are located within the project site. However, as noted in Table 3.5-1, one known prehistoric resource and four historic era resources are located within 0.5 mile of the project site.

3.5.3 - Regulatory Framework

Federal

National Historic Preservation Act

The National Historic Preservation Act of 1966 (NHPA), as amended, established the NRHP, which contains an inventory of the nation's significant prehistoric and historic properties. Under Title 36 Code of Federal Regulations Part 60, a property is recommended for possible inclusion on the NRHP if it is at least 50 years old, has integrity, and meets one of the following criteria:

- It is associated with significant events in history, or broad patterns of events.
- It is associated with significant people in the past.
- It embodies the distinctive characteristics of an architectural type, period, or method of construction; or it is the work of a master or possesses high artistic value; or it represents a significant and distinguishable entity whose components may lack individual distinction.
- It has yielded, or may yield, information important in history or prehistory.

Certain types of properties are usually excluded from consideration for listing in the NRHP, but they can be considered if they meet special requirements in addition to meeting the criteria listed above. Such properties include religious sites, relocated properties, graves and cemeteries, reconstructed properties, commemorative properties, and properties that have achieved significance within the past 50 years.

Archaeological Resources Protection Act

The Archaeological Resources Protection Act (ARPA) amended the Antiquities Act of 1906 (16 United States Code [USC] 431–433) and set a broad policy that archaeological resources are important to the nation and should be protected, and required special permits before the excavation or removal of archaeological resources from public or Indian lands. The purpose of ARPA was to secure, for the present and future benefit of the American people, the protection of archaeological resources and sites that are on public lands and Indian lands, and to foster increased cooperation and exchange of information between governmental authorities, the professional archaeological community, and private individuals having collections of archaeological resources and data that were obtained before October 31, 1979.

American Indian Religious Freedom Act

The American Indian Religious Freedom Act (AIRFA) established federal policy to protect and preserve the inherent rights of freedom for Native American groups to believe, express, and exercise their traditional religions. These rights include but are not limited to access to sites, use and possession of sacred objects, and freedom to worship through ceremonials and traditional rites.

Native American Graves Protection and Repatriation Act

The Native American Graves Protection and Repatriation Act (NAGPRA) of 1990 sets provisions for the intentional removal and inadvertent discovery of human remains and other cultural items from federal and tribal lands. It clarifies the ownership of human remains and sets forth a process for repatriation of human remains and associated funerary objects and sacred religious objects to the Native American groups claiming to be lineal descendants or culturally affiliated with the remains or objects. It requires any federally funded institution housing Native American remains or artifacts to compile an inventory of all cultural items within the museum or with its agency and to provide a summary to any Native American tribe claiming affiliation.

State

CEQA Guidelines Section 15064.5(a)—CEQA Definition of Historical Resources

CEQA Guidelines Section 15064.5(a), in Title 14 of the California Code of Regulations, defines a "historical resource" as:

1. A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources.
2. A resource included in a local register of historical resources, as defined in Section 5020.1(k) of the Public Resources Code, or identified as significant in a historical resource survey meeting the requirements of Section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
3. Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources.
4. The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to Section 5020.1(k) of the Public Resources Code), or identified in a historical resources survey (meeting the criteria in Section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be a historical resource as defined in Public Resources Code Sections 5020.1(j) or 5024.1.

Therefore, under the CEQA Guidelines, even if a resource is not included on any local, State, or federal register, or identified in a qualifying historical resources survey, a lead agency may still determine that any resource is a historical resource for the purposes of CEQA if there is substantial evidence supporting such a determination. A lead agency must consider a resource to be historically significant if it finds that the resource meets the criteria for listing in the CRHR. Archaeological and historical sites are protected pursuant to a wide variety of State policies and regulations, as enumerated in the Public Resources Code. Cultural resources are recognized as nonrenewable resources and receive additional protection under the Public Resources Code and CEQA.

CEQA Guidelines Section 15064.5(a)(3)—California Register of Historical Resources Criteria

As defined by CEQA Guidelines, Section 15064.5(a)(3)(A-D), a resource shall be considered historically significant if the resource meets the criteria for listing on the CRHR. The CRHR and many local preservation ordinances have employed the criteria for eligibility to the NRHP as a model (see criteria described above under the description of the NHPA), since the NHPA provides the highest standard for evaluating the significance of historic resources. A resource that meets NRHP criteria is clearly significant. In addition, a resource that does not meet NRHP standards may still be considered historically significant at a local or State level.

California Public Resources Code Section 5024.1—California Register of Historic Resources

Section 5024.1 of the Public Resources Code states that the CRHR is a guide to be used by State and local agencies, private groups, and citizens to identify the State's historical resources and to indicate what properties are to be protected from substantial adverse change. Administration of the CRHR is to be overseen by the NAHC. Section 5024.1 indicates that the register shall include historical resources determined by the NAHC, according to adopted procedures, to be significant and to meet the criteria in subdivision (c).

CEQA Guidelines 15064.5(c)—Effects on Archaeological Resources

CEQA Guidelines state that a resource need not be listed on any register to be found historically significant. CEQA Guidelines direct lead agencies to evaluate archaeological sites to determine whether they meet the criteria for listing in the CRHR. If an archaeological site is a historical resource, in that it is listed or eligible for listing in the CRHR, potential adverse impacts to it must be considered. If an archaeological site is considered not to be a historical resource but meets the definition of a "unique archaeological resource" as defined in Public Resources Code Section 21083.2, then it would be treated in accordance with the provisions of that section.

CEQA Guidelines Section 15064.5(d)—Effects on Human Remains

Native American human remains and associated burial items may be significant to descendant communities and/or may be scientifically important for their informational value. They may be significant to descendant communities for patrimonial, cultural, lineage, and religious reasons. Human remains may also be important to the scientific community, such as prehistorians, epidemiologists, and physical anthropologists. The specific stake of some descendant groups in ancestral burials is a matter of law for some groups, such as Native Americans (CEQA Guidelines § 15064.5(d); PRC § 5097.98). CEQA and other State laws and regulations regarding Native American human remains provide the following procedural requirements to assist in avoiding potential

adverse effects on human remains within the contexts of their value to both descendant communities and the scientific community:

- When an initial study identifies the existence or probable likelihood that a project would affect Native American human remains, the lead agency is to contact and work with the appropriate Native American representatives identified through the NAHC to develop an agreement for the treatment and disposal of the human remains and any associated burial items (CEQA Guidelines § 15064.5(d); PRC § 5097.98).
- If human remains are accidentally discovered, the county coroner must be contacted. If the county coroner determines that the human remains are Native American, the coroner must contact the NAHC within 24 hours. The NAHC must identify the Most Likely Descendant (MLD) to provide for the opportunity to make recommendations for the treatment and disposal of the human remains and associated burial items.
- If the MLD fails to make recommendations within 24 hours of notification or the project applicant rejects the recommendations of the MLD, the Native American human remains and associated burial items must be reburied in a location not subject to future disturbance within the project site (PRC § 5097.98).
- If potentially affected human remains or a burial site may have scientific significance, whether or not it has significance to Native Americans or other descendant communities, then under CEQA, the appropriate mitigation of effect may require the recovery of the scientific information of the remains/burial through identification, evaluation, data recovery, analysis, and interpretation (CEQA Guidelines § 15064.5(c)(2)).

California Public Resources Code Section 5097.91—Native American Heritage Commission

Section 5097.91 of the Public Resources Code established the NAHC, whose duties include the inventory of places of religious or social significance to Native Americans and the identification of known graves and cemeteries of Native Americans on private lands. Under Section 5097.91 of the Public Resources Code, a State policy of noninterference with the free expression or exercise of Native American religion was articulated along with a prohibition of severe or irreparable damage to Native American sanctified cemeteries, places of worship, religious or ceremonial sites or sacred shrines located on public property. Section 5097.98 of the Public Resources Code specifies a protocol to be followed when the NAHC receives notification of a discovery of Native American human remains from a county coroner. Section 5097.5 defines as a misdemeanor the unauthorized disturbance or removal of archaeological, historic, or paleontological resources located on public lands.

Local

City of Tracy General Plan

The Tracy General Plan includes the following goals, policies, and actions related to the protection of cultural resources that are relevant to the analysis to the proposed project.

Goal CC-3: Preserve and Enhance Historic Resources

Objective CC-3.1: Identify and Preserve Cultural and Historic Resources

Policies

Policy P1 The City shall encourage the preservation, enhancement, and conservation of historic and older neighborhoods, such as Lincoln Park, through its direct actions.

Policy P2 Identified cultural and historic landmarks and buildings shall be preserved

Policy P3 New development, redevelopment, alterations, and remodeling projects should be sensitive to surrounding historic context.

Policy P4 As part of the development review process, there shall be a standard condition of approval that if any resources are found during construction, all operations within the project area shall halt until an assessment can be made by appropriate professionals regarding the presence of archaeological and paleontological resources and the potential for adverse impacts on these resources.

Policy P5 Any archaeological or paleontological resources on private property shall be either preserved on their sites or adequately documented and conserved as a condition of removal. If any resources are found unexpectedly during development, then construction must cease immediately until accurate study and conservation measures are implemented.

Policy P6 If Native American artifacts are discovered on a site, the City shall consult representatives of the Native American community to ensure the respectful treatment of Native American sacred places.

City of Tracy Resolutions

The City of Tracy Resolution 3232, which was signed in 1978, designated 50 structures and sites to be historical landmarks in Tracy. The resolution followed a survey of architecturally and historically significant resources in the City. Resolution 2001-076 added two more buildings to the above-referenced list of designated properties. The Tracy Historic Landmarks designation encourages public recognition and protection of resources of architectural, cultural, or historical significance for local planning purposes. However, the City has not adopted a historic preservation ordinance or other protective or restrictive regulation. Accordingly, a Local Landmarks designation does not equate with permanent protection for a structure from demolition or alteration. None of the structures on the project site are identified on this list.

City of Tracy Municipal Code

Title 9 of the Tracy Municipal Ordinance addresses building regulations. Chapter 9.48 adopts the California Historical Building Code. The purpose of the chapter is to "provide regulations for the preservation, restoration, rehabilitation, relocation, or reconstruction of buildings or structures designated as qualified historical buildings or properties; provide alternative solutions for the preservation of qualified historical buildings or properties, to provide access for persons with

disabilities, to provide a cost-effective approach to preservation, and to provide for the reasonable safety of occupants or users."

3.5.4 - Project Impacts and Mitigation Measures

Significance Criteria

The City is utilizing Appendix G, Environmental Checklist, of the CEQA Guidelines, thresholds of significance for this project. Accordingly, cultural resources impacts resulting from the implementation of the proposed project would be considered significant if the project would:

a) Cause a substantial adverse change in the significance of a historical resource as pursuant to Section 15064.5.

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

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

Approach to Analysis

This evaluation focuses on whether the project would impact historic, archaeological or human remains.

The project may have an impact on a historical resource if construction of the project would impair a resource's eligibility for inclusion in the CRHR. Analysis is based, in part, on information collected from record searches at the Northwest Information Center (NWIC), additional archival research, pedestrian surveys, and information from historic architectural assessment of existing properties more than 45 years in age located within the project boundaries. If an identified impact would leave a resource no longer able to convey its significance, meaning that the resource would no longer be eligible for listing in the CRHR, then the project's impact would be considered a significant adverse change. According to CEQA Guidelines Public Resources Code Section 15126.4(b)(1) (CEQA Guidelines), if a project adheres to the Secretary of Interior standards, the project's impact "shall generally be considered mitigated below a level of significance and thus is not significant."

The project may have an impact on an archaeological resource or human remains if construction of the project would physically damage or destroy archaeological data or human remains (including those interred outside of formal cemeteries). Analysis is based, in part, on information collected from record searches at the NWIC, the additional archival research, and pedestrian surveys.

Both direct and indirect effects of project implementation were considered for this analysis. Direct impacts are typically associated with construction and/or ground-disturbing activities, and have the potential to immediately alter, diminish, or destroy all or part of the character and quality of archaeological resources and/or historic architecture. Indirect impacts are typically associated with post-project implementation conditions that have the potential to alter or diminish the historical setting of a cultural resource (generally historic architecture) by introducing visual intrusions on existing historical structures that are considered undesirable.

Impacts Evaluation

Historic Resources

Impact CUL-1: The proposed project could cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5.

Construction

The CCIC records search located four historic era resources within the 0.5-mile search radius. The closest known historical resources are located on the southwest corner of the project site (P-39-000072) and along the southern boundary of the project site (P39-004373). The remaining historic era resources are not in close proximity to the project boundary and all four resources would remain unaffected because no human remains have been previously recorded on the project site or in its vicinity. The southwest corner of project site contains buildings and structures over 50 years old associated with the Mattos Dairy Farm complex. As discussed above, the Mattos Dairy Farm complex was evaluated relative to the four CRHR eligibility criteria and found to be ineligible to meet any of the criteria for historic and/or architectural significance required for listing on the NRHP, CRHR, or at the local level.

While unlikely, subsurface construction activities always have the potential to damage or destroy previously undiscovered historic resources such as wood, stone, foundations, and other structural remains; debris-filled wells or privies; and deposits of wood, glass, ceramic, and other refuse, if encountered. This would represent a potentially significant impact related to historic resources.

Implementation of Mitigation Measure (MM) CUL-1 would require an inspection and spot-monitoring by a qualified Archaeologist after clearing and grubbing but before digging and trenching, when any historic resources would be visible. This would reduce potential impacts to historic resources that may be discovered during project construction. If a potential resource is identified, construction would be required to stop in the area of the finding(s) until appropriate identification and treatment measures are implemented. This measure would be consistent with the City's standard conditions of approval that require monitoring of construction sites in proximity to known resources. Therefore, direct, and indirect impacts related to historic resources would be less than significant with mitigation.

Operation

Impacts related to a project's potential to cause a substantial adverse change in the significance of a historical resource are limited to inadvertent discoveries. No respective operational impacts would occur.

Level of Significance Before Mitigation

Potentially Significant Impact

Mitigation Measures

MM CUL-1 Archaeological Spot-Monitoring and Halt of Construction Upon Encountering Historical or Archaeological Materials

An Archaeologist who meets the Secretary of the Interior's Professional Qualification Standards for archaeology shall inspect the site once grubbing and clearing are complete for the purpose of determining whether there are any previously undiscovered resources on-site, and prior to any grading or trenching into previously undisturbed soils. This shall be followed by regular periodic or "spot-check" archaeological monitoring as determined by the Archaeologist. If the Archaeologist believes that a reduction in monitoring activities is prudent, then a letter report detailing the rationale for making such a reduction and summarizing the monitoring results shall be provided to the City of Tracy for concurrence. In the event a potentially significant cultural resource is encountered during subsurface earthwork activities, all construction activities within a 100-foot radius of the find shall cease and workers shall avoid altering the materials until an Archaeologist has evaluated the situation. The applicants for the development of the Tracy Alliance, Suvik Farms, and Zuriakat parcels shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. Potentially significant cultural resources consist of but are not limited to stone, bone, glass, ceramics, fossils, wood, or shell artifacts, or features including hearths, structural remains, or historic dumpsites. The Archaeologist shall evaluate any finding(s) and determine whether they are significant, and if so, shall make recommendations concerning appropriate measures that will be implemented to protect the significant resource, including but not limited to excavation and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines. Any previously undiscovered significant resources found during construction within the project site shall be recorded on appropriate Department of Parks and Recreation (DPR) 523 forms and shall be submitted to the City of Tracy, the Northwest Information Center (NWIC), and the California Office of Historic Preservation (OHP), as required.

Level of Significance After Mitigation

Less Than Significant Impact

Archaeological Resources

Impact CUL-2: The proposed project could cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.

Construction

Records search from the CCIC indicated that one prehistoric archaeological resource has previously been recorded within the 0.5-mile radius of the project site and is not located within the project site boundary. No additional archaeological resources were encountered during the pedestrian field survey and evaluation; however, the presence of a prehistoric archaeological site within the 0.5-mile radius, coupled with poor soil visibility across the Tracy Alliance and Zuriakat project parcels

increases the possibility undiscovered cultural resources may be encountered during project construction. Such resources could consist of but are not limited to stone, bone, wood, or shell artifacts or features, including hearths and structural elements. This represents a potentially significant impact related to archaeological resources.

However, implementation of MM CUL-1 which requires inspection and spot-monitoring by a qualified Archaeologist after clearing and grubbing are complete, but before any digging or trenching begin, would reduce potential impacts to archaeological resources that may be discovered during project construction. If a potential resource is identified, construction would be required to stop until appropriate identification and treatment measures are implemented. Therefore, direct and indirect impacts related to archaeological resources would be less than significant with mitigation.

Operation

Impacts related to a project's potential to cause a substantial adverse change in the significance of an archaeological resource are limited to construction impacts. No respective direct or indirect operational impacts related to archaeological resource would occur.

Level of Significance Before Mitigation

Potentially Significant Impact

Mitigation Measures

Implement MM CUL-1

Level of Significance After Mitigation

Less Than Significant Impact

Human Remains

Impact CUL-3:	**The proposed project could disturb human remains, including those interred outside of formal cemeteries.**

Construction

The potential for human remains to be discovered during ground-disturbing activities is considered low because no human remains have previously been discovered on the project site or in its vicinity. While it is unlikely that the presence of human remains exists within or near the project site, there is always the possibility that subsurface construction activities associated with the proposed project, such as grading or trenching, could potentially damage or destroy previously undiscovered human remains. In the event of the accidental discovery or recognition of any human remains, CEQA Guidelines Section 15064.5, Health and Safety Code Section 7050.5, and Public Resources Code Sections 5097.94 and 5097.98 must be followed. MM CUL-3 further specifies the procedures to follow in the event human remains are uncovered. Along with compliance with these guidelines and statutes, implementation of this mitigation would reduce potential impacts related to human remains to a less than significant level.

Operation

Impacts related to a proposed project's potential to disturb human remains are limited to construction impacts. No respective operational impacts would occur.

Level of Significance Before Mitigation

Potentially Significant Impact

Mitigation Measures

MM CUL-3 Stop Construction Upon Encountering Human Remains

In the event of the accidental discovery or recognition of any human remains, CEQA Guidelines Section 15064.5, Health and Safety Code Section 7050.5, and Public Resources Code Sections 5097.94 and Section 5097.98 shall be followed. If during the course of project construction, there is accidental discovery or recognition of any human remains, the following steps shall be taken:

1. There shall be no further excavation or disturbance within 100 feet of the remains until the county coroner is contacted to determine whether the remains are Native American and if an investigation of the cause of death is required. If the coroner determines the remains to be Native American, the coroner shall contact the Native American Heritage Commission (NAHC) within 24 hours, and the NAHC shall identify the person or persons it believes to be the Most Likely Descendant (MLD) of the deceased Native American. The MLD may make recommendations to the landowner or the person responsible for the excavation work within 48 hours, for means of treating or disposing of, with appropriate dignity, the human remains, and any associated grave goods as provided in Public Resource Code Section 5097.98.
2. Where the following conditions occur, the landowner or his or her authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity either in accordance with the recommendations of the MLD or on the project site in a location not subject to further subsurface disturbance:
   - The NAHC is unable to identify an MLD or the MLD failed to make a recommendation within 48 hours after being notified by the commission.
   - The descendant identified fails to make a recommendation.
   - The landowner or his authorized representative rejects the recommendation of the descendant, and mediation by the NAHC fails to provide measures acceptable to the landowner.

Additionally, California Public Resources Code Section 15064.5 requires the following relative to Native American remains:

- When an initial study identifies the existence of, or the probable likelihood of, Native American remains within a project, a lead agency shall work with the appropriate Native Americans as identified by the NAHC as provided in Public Resources Code Section 5097.98. The applicants for the development of the Tracy Alliance, Suvik Farms, and Zuriakat parcels may each develop a plan with respect to their individual development proposals for treating or disposing of, with appropriate dignity, the human remains, and any items associated with Native American burials with the appropriate Native Americans as identified by the NAHC.

Level of Significance After Mitigation

Less Than Significant Impact

3.5.5 - Cumulative Impacts

The geographic scope for the cumulative analysis is described further below for each type of resource. This analysis evaluates whether the impacts of the proposed project, together with the impacts of cumulative development, could result in a cumulatively significant impact related to historical, archaeological, and cultural resources. This analysis then considers whether the incremental contribution of the impacts associated with the implementation of the proposed project would be significant. Both conditions must apply for the project's cumulative effects to rise to the level of significance.

Historic Resources

The relevant geographic scope for historic resources is the City. The cumulative setting includes existing agricultural and industrial uses. A portion of the southwest corner of the project site is currently occupied by several residences and agricultural structures. The Mattos Dairy Farm complex located on-site, while of historic age, is ineligible for local listing under City of Tracy Resolution 3232 and was found to be ineligible for listing on the CRHR. The dairy complex therefore does not qualify as a historic resource under CEQA, and its demolition will not contribute to a cumulative impact on the City.

All cumulative projects, except for Cumulative Project 29 and Cumulative Project 30, are all within the City. These cumulative projects have the potential to result in impacts to historic resources. However, potential cumulative impacts would be mitigated at an individual project level by adherence to applicable current State and federal laws and regulations, as well as other City and County laws, regulations and mitigations, such as adherence to standard conditions of approval that require monitoring of construction sites in proximity to known resources (similar touch as MM CUL-1). The combination of these efforts would reduce potential cumulative impacts related to historical resources to a less than significant level.

Archaeological Resources

The geographic scope of the cumulative archaeological resources analysis is the project vicinity. This is because archaeological resource impacts tend to be localized, because the integrity of any given

resource depends on what occurs in the immediate vicinity around that resource, such as disruption of soils; therefore, in addition to the project site itself, the area near the project site would be the area most affected by project activities (generally within a 0.5-mile radius). As discussed above, the cumulative setting includes existing agricultural and industrial uses. Given that the project will not have a known, direct impact on any known archaeological resources, project impacts are less than significant in this regard.

Construction activities associated with the proposed project has the potential to encounter undiscovered cultural resources. The proposed project would be required to mitigate for impacts through compliance with applicable federal and State laws and regulations governing cultural resources.

Additionally, the implementation of standard construction mitigation measures (MM CUL-1 and MM CUL-3) would ensure that undiscovered cultural resources are not adversely affected by project-related construction activities, which would prevent the destruction or degradation of potentially significant cultural resources in the project vicinity.

Cumulative Projects 15, 19, 27, 30, and 35 are all within a 0.5-mile radius of the project site. These cumulative projects would be subject to applicable current State and federal laws and regulations, as well as other local and City and County laws, regulations, and mitigations, such as adherence to standard conditions of approval that require monitoring of construction sites in proximity to known resources, immediate cessation of construction activity upon discovery of unidentified human remains, and the protection of cultural resources that are discovered. The combination of the above-mentioned efforts and other standard construction conditions and mitigation measures (similar touch as MM CUL-1 and MM CUL-3) would reduce potential cumulative impacts related to archaeological and cultural resources to a less-than-significant level.

Level of Cumulative Significance

Less Than Significant Impact With Mitigation Incorporated

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3.6 - Energy

3.6.1 - Introduction

This section describes the existing energy use setting as well as the relevant regulatory framework. This section also evaluates the potential impacts related to energy use that could result from implementation of the proposed project. Information in this section is based, in part, on project-specific energy use calculations included in Appendix E.

3.6.2 - Existing Setting

Energy Basics

Energy use, especially through fossil fuel consumption and combustion, relates directly to environmental quality since it can have the potential to adversely affect air quality and generate greenhouse gas (GHG) emissions that may contribute to climate change. Electrical power is generated through a variety of sources, including fossil fuel combustion, hydropower, wind, solar, biofuels, and others. Natural gas is widely used to heat buildings, prepare food in restaurants and residences, and fuel vehicles, among other uses. Fuel use for transportation is related to the fuel efficiency of cars, trucks, and public transportation; choice of different travel modes such as auto, carpool, and public transit; and miles traveled by these modes, and generally based on petroleum-based fuels such as diesel and gasoline. Electric vehicles (EVs) may not have any direct emissions but do have indirect emissions via the source of electricity generated to power the vehicle. Construction and routine operation and maintenance of transportation infrastructure also consume energy.

Electricity Generation, Distribution, and Use

State of California

In 2018, California's in-State electric generation totaled 194,842 gigawatt-hours (GWh).[1] Primary fuel sources for the State's electricity generation in 2018 included natural gas (46.5 percent), large hydro (11.3 percent), solar photovoltaic (PV) (13.9 percent), nuclear (9.4 percent), wind (7.2 percent), geothermal (5.9 percent), small hydro (2.2 percent), biomass (3.0 percent), coal (0.2 percent), petroleum coke and waste heat (0.2 percent), and oil (<0.1 percent).[2] In-state electricity generation capacity reached approximately 80,000 megawatts (MW) in 2018.[3]

According to the California Energy Commission (CEC), California consumed approximately 285,488 GWh in 2018, down 2 percent from 2017.[4] According to the CEC's Energy Consumption Database, residential electricity demand accounted for approximately 32.9 percent of California's electricity consumption in 2018 while nonresidential demand account for approximately 67.1 percent.[5]

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1 California Energy Commission (CEC). 2021. "Total System Electric Generation." Website: https://ww2.energy.ca.gov/almanac/electricity_data/total_system_power.html#:~:text=California%20has%20approximately%2080%2C000%20MW,and%206%2C000%20MW%20from%20wind. Accessed February 2, 2021.

2 Ibid.

3 Ibid.

4 Ibid.

5 "Electricity Consumption by County." Website: https://ecdms.energy.ca.gov/elecbycounty.aspx. Accessed January 28, 2021.

City of Tracy

The City of Tracy is served solely by Pacific Gas and Electric Company (PG&E) to meet electrical power demands. As of 2018, PG&E's portfolio contains 39 percent electricity generated from renewable sources.[6]

The smallest scale at which electricity consumption information is readily available is the county level. Therefore, electricity consumption in San Joaquin County is used herein to also characterize the City's existing electricity consumption. San Joaquin County includes seven cities and a large unincorporated area. According to the CEC, San Joaquin County consumed approximately 5,583.3 GWh in 2019.[7]

Natural Gas Generation, Distribution, and Use

State of California

Natural gas continues to play an important and varied role in California; however, California continues to depend on out-of-state imports for nearly 90 percent of its natural gas supply.[8] The State's net natural gas production for 2019 was approximately 193.9 billion cubic feet, representing a decrease of approximately 4.3 percent from 2018 production.[9]

In 2018, California consumed a total of 12,666 million U.S. therms of natural gas, or approximately 1,266 trillion British Thermal Unit (BTU),[10] with approximately 28.8 percent going directly to electricity generation.[11] According to the CEC's Energy Consumption Database, residential natural gas demand accounted for approximately 34.7 percent of California's total natural gas demand while nonresidential natural gas demand accounted for approximately 65.3 percent.[12]

City of Tracy

The City of Tracy is served solely by PG&E to meet natural gas demands. PG&E has detailed information regarding a commitment to use renewable gas sources in the future but has not provided a current figure for renewable gas in their portfolio.

The smallest scale at which natural gas consumption information is readily available is at the county level; therefore, natural gas consumption in San Joaquin County is used herein to also characterize the City's existing natural gas consumption.

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6 Pacific Gas and Electric Company (PG&E). 2020. https://www.pgecorp.com/corp_responsibility/reports/2020/bu07_renewable_energy.html. Accessed January 28, 2021.

7 California Energy Commission (CEC). 2020. "Electricity Consumption by County." Website: https://ecdms.energy.ca.gov/elecbycounty.aspx. Accessed January 28, 2021.

8 California Energy Commission (CEC). 2019. "Supply and Demand of Natural Gas in California." Website: https://ww2.energy.ca.gov/almanac/naturalgas_data/overview.html. Accessed June 2, 2020.

9 United State Energy Information Administration (EIA). 2020. "Natural Gas Gross Withdrawals and Production." May. Website: https://www.eia.gov/dnav/ng/ng_prod_sum_a_EPG0_VGM_mmcf_a.htm. Accessed June 2, 2020.

10 California Energy Commission (CEC). 2020. "Gas Consumption by County." Website: https://ecdms.energy.ca.gov/gasbycounty.aspx. Accessed January 28, 2021.

11 United State Energy Information Administration (EIA). 2020. Table F18: Natural Gas Consumption Estimates, 2018. January 3. Website: https://www.eia.gov/state/seds/seds-data-fuel.php?sid=CA#NaturalGas. Accessed June 10, 2020.

12 California Energy Commission (CEC). 2018. "Gas Consumption by County." Website: https://ecdms.energy.ca.gov/gasbycounty.aspx. Accessed June 15, 2020.

According to the CEC, San Joaquin County consumed approximately 259.4 million U.S. therms of natural gas in 2019, or approximately 25,400 billion BTU.[13]

Transportation Fuel Use

State of California

California is one of the top producers of petroleum in the nation, with drilling operations occurring throughout the State. A network of crude oil pipelines connects production areas to oil refineries in the Los Angeles area, the San Francisco Bay Area, and the Central Valley. California oil refineries also process Alaskan and foreign crude oil received in ports in Los Angeles, Long Beach, and the San Francisco Bay Area. Crude oil production in California and Alaska is in decline, and California refineries have become increasingly dependent on foreign imports.[14] Since 2012, foreign suppliers, led by Saudi Arabia, provide over half of the crude oil refined in California.[15,16] According to the United States Energy Information Administration (EIA), California's field production of crude oil has steadily declined since the mid-1980s, totaling approximately 161.5 million barrels in 2019.[17]

According to the EIA, transportation accounted for nearly 40 percent of California's total energy demand, amounting to approximately 3,170 trillion BTU in 2018.[18] California's transportation sector, including rail and aviation, consumed roughly 584 million barrels of petroleum fuels in 2018.[19] In 2018, petroleum-based fuels were used for approximately 86 percent of the State's total transportation activity.[20] The CEC produces the California Annual Retail Fuel Outlet Report, which is a compilation of gasoline and diesel fuel sales data from across the State available at the county level. According to the CEC, California's 2017 fuel sales totaled 15,471 million gallons of gasoline and 3,417 million gallons of diesel.[21]

Alternative Fuels

A variety of alternative fuels are used to reduce petroleum-based fuel demand. The use of these fuels is encouraged through various Statewide regulations and plans, such as the Low Carbon Fuel Standard (LCFS) and Senate Bill (SB) 32. Conventional gasoline and diesel may be replaced, depending on the capability of the vehicle, with transportation fuels including hydrogen, biodiesel, and electricity. Currently, 44 public hydrogen refueling stations exist in California; however, none are

[13] California Energy Commission (CEC). 2020. "Gas Consumption by County." Website: https://ecdms.energy.ca.gov/gasbycounty.aspx. Accessed January 28, 2021.

[14] California Energy Commission (CEC). 2020. "Oil Supply Sources to California Refineries." Website: https://www.energy.ca.gov/data-reports/energy-almanac/californias-petroleum-market/oil-supply-sources-california-refineries. Accessed June 2, 2020.

[15] California Energy Commission (CEC). 2019. "Foreign Sources of Crude Oil Imports to California 2018." March. Website: https://www.energy.ca.gov/data-reports/energy-almanac/californias-petroleum-market/foreign-sources-crude-oil-imports. Accessed June 2, 2020.

[16] California Energy Commission (CEC). 2020. "Oil Supply Sources to California Refineries." Website: https://www.energy.ca.gov/data-reports/energy-almanac/californias-petroleum-market/oil-supply-sources-california-refineries. Accessed June 2, 2020.

[17] United State Department of Energy, Alternative Fuels Data Center. 2020. "Alternative Fueling Station Locator [Interactive Database]." Website: https://afdc.energy.gov/stations/#/find/nearest. Accessed June 2, 2020.

[18] United State Energy Information Administration (EIA). 2020. Table F33: Total Energy Consumption, Price, and Expenditure Estimates, 2018. May 29. Website: https://www.eia.gov/state/seds/sep_fuel/html/pdf/fuel_te.pdf. Accessed June 10, 2020.

[19] United State Energy Information Administration (EIA). 2020. Table F16: Total Petroleum Consumption Estimates, 2018. April 24. Website: https://www.eia.gov/state/seds/sep_fuel/html/pdf/fuel_use_pa.pdf. Accessed June 10, 2020.

[20] United State Energy Information Administration (EIA). 2020. Table F18: Natural Gas Consumption Estimates, 2018. January 3. Website: https://www.eia.gov/state/seds/seds-data-fuel.php?sid=CA#NaturalGas. Accessed June 10, 2020.

[21] California Energy Commission (CEC). 2019. 2010-2018 CEC-A15 Results and Analysis. Website: https://www.energy.ca.gov/data-reports/energy-almanac/transportation-energy/california-retail-fuel-outlet-annual-reporting. Accessed June 15, 2020.

in the City.[22,23] Currently, 10 public biodiesel refueling stations are in California, with none of them in the City.[24]

Electric Vehicles

Electricity can be used to power electric and plug-in hybrid EVs directly from the power grid. Electricity used to power vehicles is generally provided by the electricity grid and stored in the vehicle's batteries. Fuel cells are being explored to use electricity generated onboard the vehicle to power electric motors. Currently, California has approximately 6,433 EV charging stations, 12 of which are located in the City.

City of Tracy

Petroleum fuels are generally purchased by individual users such as residents and employees. There are approximately 15 gasoline stations in the City, the closest of which is located approximately 1.5 miles west of the project site.[25]

The smallest scale at which gasoline and diesel fuel sales information is readily available is the county level. Therefore, fuel sales in San Joaquin County are used herein to also characterize the City's existing gasoline and diesel fuel consumption. According to the CEC, San Joaquin County consumed an estimated 352 million gallons of gasoline and 113 million gallons of diesel fuel in 2019.[26]

3.6.3 - Regulatory Framework

Federal

Until the early 2000s, there were no specific federal laws and regulations for GHG emissions or major planning for climate change adaptation. Since then, federal activity has increased. The following are actions regarding the federal government, GHG emissions, and fuel efficiency.

GHG Endangerment

Massachusetts v. EPA (Supreme Court Case 05-1120) was argued before the United States Supreme Court on November 29, 2006, which involved a matter wherein the United States Environmental Protection Agency (EPA) sought to regulate four GHGs, including CO_2, under Section 202(a)(1) of the Clean Air Act. A decision was made on April 2, 2007, in which the Supreme Court found that GHGs are air pollutants covered by the Clean Air Act. The Court held that the Administrator must determine whether emissions of GHGs from new motor vehicles cause or contribute to air pollution, which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. On December 7, 2009, the EPA Administrator signed two

[22] United State Department of Energy, Alternative Fuels Data Center. 2020. "Alternative Fueling Station Locator [Interactive Database]." Website: https://afdc.energy.gov/stations/#/find/nearest. Accessed January 28, 2021.

[23] United State Department of Energy, Alternative Fuels Data Center. 2020b. "Alternative Fueling Station Counts by State." June. Website: https://afdc.energy.gov/stations/states. Accessed January 28, 2021.

[24] Ibid.

[25] Google. 2021. "Google Maps [Interactive Database]." Website: https://www.google.com/maps/search/tracy+ca+gas+stations/@37.7434779,-121.5006973,13z/data=!3m1!4b1. Accessed January 28, 2021.

[26] California Energy Commission (CEC). 2020. 2010-2019 CEC-A15 Results and Analysis. Website: https://www.energy.ca.gov/data-reports/energy-almanac/transportation-energy/california-retail-fuel-outlet-annual-reporting. Accessed January 28, 2021.

distinct findings regarding GHGs under Section 202(a) of the Clean Air Act. These findings do not impose requirements on industry generally or specific types of entities. However, this was a prerequisite for implementing GHG emissions standards for vehicles, as discussed in the section "Clean Vehicles" below. After a lengthy legal challenge, the United States Supreme Court declined to review an appellate court ruling upholding the EPA Administrator's findings.

Clean Vehicles

Congress first passed the Corporate Average Fuel Economy law in 1975 to increase the fuel economy of cars and light duty trucks. The law has become more stringent over time. On May 19, 2009, President Obama put in motion a new national policy to increase fuel economy for all new cars and trucks sold in the United States. On April 1, 2010, the EPA and the Department of Transportation's National Highway Safety Administration announced a joint final rule establishing a national program that would reduce GHG emissions and improve fuel economy for new cars and trucks sold in the United States.

The first phase of the national program applies to passenger cars, light duty trucks, and medium duty passenger vehicles, covering model years 2012 through 2016. They require these vehicles to meet an estimated combined average emissions level of 250 grams of CO_2 per mile, equivalent to 35.5 miles per gallon if the automobile industry were to meet this CO_2 level solely through fuel economy improvements. Together, these standards would cut CO_2 emissions by an estimated 960 million metric tons (MMT) and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012–2016). The EPA and the National Highway Safety Administration issued final rules on a second-phase joint rulemaking, establishing national standards for light duty vehicles for model years 2017 through 2025 in August 2012.[27] The new standards for model years 2017 through 2025 apply to passenger cars, light duty trucks, and medium duty passenger vehicles. The final standards are projected to result in an average industry fleetwide level of 163 grams/mile of CO_2 in model year 2025, which is equivalent to 54.5 miles per gallon (mpg) if achieved exclusively through fuel economy improvements.

The EPA and the United States Department of Transportation issued final rules for the first national standards to reduce GHG emissions and improve fuel efficiency of heavy-duty trucks and buses on September 15, 2011, which became effective November 14, 2011. For combination tractors, the agencies proposed engine and vehicle standards that began in the 2014 model year and achieve up to a 20 percent reduction in CO_2 emissions and fuel consumption by the 2018 model year. For heavy-duty pickup trucks and vans, the agencies proposed separate gasoline and diesel truck standards, which phased in starting in the 2014 model year and achieve up to a 10 percent reduction for gasoline vehicles, and a 15 percent reduction for diesel vehicles by 2018 model year (12 and 17 percent respectively if accounting for air conditioning leakage). Finally, for vocational vehicles, the engine and vehicle standards would achieve up to a 10 percent reduction in fuel consumption and CO_2 emissions from the 2014 to 2018 model years.

[27] United States Environmental Protection Agency (EPA). 2012. EPA and NHTSA Set Standards to Reduce Greenhouse Gases and Improve Fuel Economy for Model Years 2017-2025 Cars and Light Trucks. Website: http://www.epa.gov/otaq/climate/documents/420f12051.pdf. Accessed February 10. 2021.

Standards of Performance for Greenhouse Gas Emissions for New Stationary Sources: Electric Utility Generating Units

As required by a settlement agreement, the EPA proposed new performance standards for CO_2 emissions for new, affected, fossil fuel-fired electric utility generating units on March 27, 2012. New sources greater than 25 MW would be required to meet an output-based standard of 1,000 pounds of CO_2 per megawatt-hour (MWh), based on the performance of widely used natural gas combined cycle technology.

California

Legislative Actions to Reduce GHGs

The State of California legislature has enacted a series of bills that constitute the most aggressive program to reduce GHGs of any state in the nation, much of which is centered on energy efficiency and clean fuels. Legislation such as Title 24 and Title 20 energy standards were adopted for energy and water conservation, but also provide GHG reductions. This section describes the major provisions of the legislation.

Assembly Bill 1493, Pavley Regulations and Fuel Efficiency Standards

California Assembly Bill (AB) 1493, enacted on July 22, 2002, required the California Air Resources Board (ARB) to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. Implementation of the regulation was delayed by lawsuits filed by automakers and by the EPA's denial of an implementation waiver. The EPA subsequently granted the requested waiver in 2009, which was upheld by the by the United States District Court for the District of Columbia in 2011.[28] The standards were to be phased in during the 2009 through 2016 model years.[29]

The second phase of the implementation for the Pavley Bill was incorporated into amendments to the Low Emission Vehicle (LEV) Program referred to as LEV III or the Advanced Clean Cars program. The Advanced Clean Car program combines the control of smog-causing pollutants and GHG emissions into a single coordinated package of requirements for model years 2017 through 2025. The regulation is anticipated to reduce GHGs from new cars by 34 percent from 2016 levels by 2025. The new rules will reduce pollutants from gasoline and diesel-powered cars, and deliver increasing numbers of zero-emission technologies, such as full battery electric cars, newly emerging plug-in hybrid EVs and hydrogen fuel cell cars. The regulations will also help to ensure adequate fueling infrastructure is available for the increasing numbers of hydrogen fuel cell vehicles planned for deployment in California.

Assembly Bill 32

The California State Legislature enacted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires that GHGs emitted in California be reduced to 1990 levels by the year 2020. "Greenhouse gases" as defined under AB 32 include CO_2, CH_4, N_2O, hydrofluorocarbons,

[28] California Air Resources Board (ARB). 2013. Clean Car Standards—Pavley, Assembly Bill 1493. Website: http://www.arb.ca.gov/cc/ccms/ccms.htm. Accessed February 2, 2021.

[29] California Air Resources Board (ARB). 2013. Facts About the Clean Cars Program. Website: http://www.arb.ca.gov/msprog/zevprog/factsheets/advanced_clean_cars_eng.pdf. Accessed February 2, 2021.

perfluorocarbons, and sulfur hexafluoride. Since AB 32 was enacted, a seventh chemical, nitrogen trifluoride, has also been added to the list of GHGs.

The ARB is the State agency charged with monitoring and regulating sources of GHGs. The ARB approved the 1990 GHG emissions level of 427 MMT carbon dioxide equivalent (CO_2e) on December 6, 2007.[30] Therefore, to meet the State's target, emissions generated in California in 2020 were required to be equal to or less than 427 MMT CO_2e. Emissions in 2020 in a Business as Usual (BAU) scenario were estimated to be 596 MMT CO_2e, which do not account for reductions from AB 32 regulations.[31] At that rate, a 29 percent reduction was required to achieve the 427 MMT CO_2e 1990 inventory.[32] In October 2010, the ARB prepared an updated 2020 forecast to account for the effects of the 2008 recession and slower forecasted growth. Under the updated forecast, a 21.7 percent reduction from BAU was required to achieve 1990 levels.[33]

California Air Resources Board Scoping Plan

The ARB Climate Change Scoping Plan (Scoping Plan) contains measures designed to reduce the State's emissions to 1990 levels by the year 2020 to comply with AB 32.[34] The Scoping Plan identifies recommended measures for multiple GHG emission sectors and the associated emission reductions needed to achieve the year 2020 emissions target—each sector has a different emission reduction target. Most of the measures target the transportation and electricity sectors. As stated in the Scoping Plan, the key elements of the strategy for achieving the 2020 GHG target include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards;
- Achieving a Statewide renewables energy mix of 33 percent;
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system;
- Establishing targets for transportation-related GHG emissions for regions throughout California and pursuing policies and incentives to achieve those targets;
- Adopting and implementing measures pursuant to existing State laws and policies, including California's clean car standards, goods movement measures, and the LCFS; and
- Creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the State's long-term commitment to AB 32 implementation.

[30] California Air Resources Board (ARB). 2007. Staff Report. California 1990 Greenhouse Gas Level and 2020 Emissions Limit. November 16, 2007. Website: www.arb.ca.gov/cc/inventory/pubs/reports/staff_report_1990_level.pdf. Accessed February 2, 2021.

[31] California Air Resources Board (ARB). 2008. (includes edits made in 2009) Climate Change Scoping Plan, a framework for change. Website: http://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf. Accessed February 2, 2021.

[32] San Joaquin Valley Air Pollution Control District (Valley Air District) 2009. "Final Staff Report, Addressing Greenhouse Gas Emissions Impacts under the California Environmental Quality Act." December 2009. Website: https://www.valleyair.org/Programs/CCAP/12-17-09/1%20CCAP%20-%20FINAL%20CEQA%20GHG%20Staff%20Report%20-%20Dec%2017%202009.pdf. Accessed April 1, 2022.

[33] California Air Resources Board (ARB). 2010. 2020 Greenhouse Gas Emissions Projection and BAU Scenario Emissions Estimate. Website: http://www.arb.ca.gov/cc/inventory/archive/captrade_2010_projection.pdf. Accessed February 2, 2021.

[34] California Air Resources Board (ARB). 2008. (includes edits made in 2009) Climate Change Scoping Plan, a framework for change. Website: http://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf. Accessed February 2, 2021.

In addition, the Scoping Plan differentiates between "capped" and "uncapped" strategies. Capped strategies are subject to the proposed cap-and-trade program. Implementation of the capped strategies is calculated to achieve a sufficient amount of reductions by 2020 to achieve the emission target contained in AB 32. Uncapped strategies that will not be subject to the cap-and-trade emissions caps and requirements are provided as a margin of safety by accounting for additional GHG emission reductions.[35]

The ARB approved the First Update to the Scoping Plan in May of 2014 and the 2017 Scoping Plan Update in November of 2017. The First Update built upon the Initial Scoping Plan while the 2017 Scoping Plan Update builds the Initial Scoping Plan and First Update to the Scoping Plan with new strategies and recommendations.

Senate Bill 32

The Governor signed SB 32 in September of 2016, giving the ARB statutory responsibility to include the 2030 target previously contained in Executive Order B-30-15 in the 2017 Scoping Plan Update. SB 32 states, "In adopting rules and regulations to achieve the maximum technologically feasible and cost-effective greenhouse gas emissions reductions authorized by this division, the state [air resources] board shall ensure that statewide greenhouse gas emissions are reduced to at least 40 percent below the statewide greenhouse gas emissions limit no later than December 31, 2030." The 2017 Climate Change Scoping Plan Update addressing the SB 32 targets was adopted on December 14, 2017. The major elements of the framework proposed to achieve the 2030 target are as follows:

1. SB 350
    - Achieve 50 percent Renewables Portfolio Standard by 2030.
    - Doubling of energy efficiency savings by 2030.
2. Low Carbon Fuel Standard
    - Increased stringency (reducing carbon intensity 18 percent by 2030, up from 10 percent in 2020).
3. Mobile Source Strategy (Cleaner Technology and Fuels Scenario)
    - Maintaining existing GHG standards for light- and heavy-duty vehicles.
    - Put 4.2 million Zero-Emission Vehicles (ZEVs) on the roads.
    - Increase ZEV buses, delivery and other trucks.
4. Sustainable Freight Action Plan
    - Improve freight system efficiency.
    - Maximize use of near Zero-Emission Vehicles and equipment powered by renewable energy.
    - Deploy over 100,000 zero-emission trucks and equipment by 2030.
5. Short-Lived Climate Pollutant Reduction Strategy
    - Reduce emissions of methane and hydrofluorocarbons 40 percent below 2013 levels by 2030.
    - Reduce emissions of black carbon 50 percent below 2013 levels by 2030.

[35] California Air Resources Board (ARB). 2008 (includes edits made in 2009). Climate Change Scoping Plan, a framework for change. Website: http://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf. Accessed February 2, 2021.

6. SB 375 Sustainable Communities Strategies
    - Increased stringency of 2035 targets.
7. Post-2020 Cap-and-Trade Program
    - Declining capacities, continued linkage with Québec, and linkage to Ontario, Canada.
    - The ARB will look for opportunities to strengthen the program to support more air quality co-benefits, including specific program design elements. In Fall 2016, the ARB staff described potential future amendments including reducing the offset usage limit, redesigning the allocation strategy to reduce free allocation to support increased technology and energy investment at covered entities and reducing allocation if the covered entity increases criteria or toxics emissions over some baseline.
8. 20 percent reduction in GHG emissions from the refinery sector.
9. By 2018, develop Integrated Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

Senate Bill 375—the Sustainable Communities and Climate Protection Act of 2008

SB 375 was signed into law on September 30, 2008. According to SB 375, the transportation sector is the largest contributor of GHG emissions, which emits over 40 percent of the total GHG emissions in California. SB 375 states, "Without improved land use and transportation policy, California will not be able to achieve the goals of AB 32." SB 375 does the following: (1) requires metropolitan planning organizations to include sustainable community strategies in their regional transportation plans for reducing GHG emissions, (2) aligns planning for transportation and housing, and (3) creates specified incentives for the implementation of the strategies.

Senate Bill 1078—Renewable Electricity Standards

On September 12, 2002, Governor Gray Davis signed SB 1078, requiring California to generate 20 percent of its electricity from renewable energy by 2017. SB 1078 changed the due date to 2010 instead of 2017. On November 17, 2008, Governor Arnold Schwarzenegger signed Executive Order S-14-08, which established a Renewable Portfolio Standard target for California requiring that all retail sellers of electricity serve 33 percent of their load with renewable energy by 2020. Governor Schwarzenegger also directed the ARB (Executive Order S-21-09) to adopt a regulation by July 31, 2010, requiring the State's load serving entities to meet a 33 percent renewable energy target by 2020. The ARB Board approved the Renewable Electricity Standard on September 23, 2010 by Resolution 10-23.

Senate Bill 350—Clean Energy and Pollution Reduction Act of 2015

The Legislature approved, and the Governor signed SB 350, which reaffirms California's commitment to reducing its GHG emissions and addressing climate change. Key provisions include an increase in the renewables portfolio standard (RPS), higher energy efficiency requirements for buildings, initial strategies toward a regional electricity grid, and improved infrastructure for EV charging stations. Specifically, SB 350 requires the following to reduce Statewide GHG emissions:

- Increase the amount of electricity procured from renewable energy sources from 33 percent to 50 percent by 2030, with interim targets of 40 percent by 2024, and 25 percent by 2027.

- Double the energy efficiency in existing buildings by 2030. This target will be achieved through the California Public Utility Commission (CPUC), the CEC, and local publicly owned utilities.
- Reorganize the role of the Independent System Operator (ISO) to develop more regional electricity transmission markets and to improve accessibility in these markets, which will facilitate the growth of renewable energy markets in the western United States.

Senate Bill 100—The 100 Percent Clean Energy Act of 2018

The legislation directs the CPUC, CEC, and the ARB to plan for 100 percent of total retail sales of electricity in California to come from eligible renewable energy resources and zero-carbon resources by December 31, 2045. This Act amends Sections 399.11, 399.15, and 399.30 of, and adds Section 454.53 to, the Public Utilities Code, relating to energy.

Executive Orders Related to GHG Emissions

California's Executive Branch has taken several actions to reduce energy consumption through the use of Executive Orders. While merely directive, meaning they are not enforceable regulation, Executive Orders set the tone for the State and guide the actions of State agencies.

Executive Order S-01-07—Low Carbon Fuel Standard

The Governor signed Executive Order S 01-07 on January 18, 2007. The Executive Order mandates that a Statewide goal shall be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020. In particular, the Executive Order established a LCFS and directed the Secretary for Environmental Protection to coordinate the actions of the CEC, the ARB, the University of California, and other agencies to develop and propose protocols for measuring the "lifecycle carbon intensity" of transportation fuels. The ARB adopted the LCFS on April 23, 2009.

The LCFS was subject to legal challenge in 2011. Ultimately, on August 8, 2013, the Fifth District Court of Appeal (California) ruled that ARB failed to comply with CEQA and the Administrative Procedure Act when adopting regulations for LCFS. In a partially published opinion, the Court of Appeal directed that Resolution 09-31 and two Executive Orders of the ARB approving LCFS regulations promulgated to reduce GHG emissions be set aside. However, the Court tailored its remedy to protect the public interest by allowing the LCFS regulations to remain operative while the ARB complies with the identified procedural requirements.

To address the Court ruling, a new LCFS regulation was considered by the ARB in February 2015. The proposed LCFS regulation was required to contain revisions to the 2010 LCFS as well as new provisions designed to foster investments in the production of the low carbon fuels, offer additional flexibility to regulated parties, update critical technical information, simplify, and streamline program operations, and enhance enforcement. The second public hearing for the new LCFS regulation was held on September 24, 2015, and September 25, 2015, where the LCFS regulation was adopted. The Final Rulemaking Package adopting the regulation was filed with the Office of Administrative Law on October 2, 2015. The OAL approved the regulation on November 16, 2015.

Executive Order N-79-20

On September 23, 2020, Governor Gavin Newsom issued an Executive Order establishing a goal that 100 percent of new passenger cars and trucks sold in California shall be zero-emission by 2035. The Executive Order also sets a goal that, where feasible, all operations include zero-emission medium- and heavy-duty trucks by 2045, and drayage trucks by 2035. Off-road vehicles have a goal to transition to 100 percent ZEVs by 2035, where feasible.

California Regulations and Building Codes

California has a long history of adopting regulations to improve energy efficiency in new and remodeled buildings. These regulations have kept California's energy consumption relatively flat even with rapid population growth.

Title 20 Appliance Efficiency Regulations

California Code of Regulations, Title 20: Division 2, Chapter 4, Article 4, Sections 1601-1608: Appliance Efficiency Regulations regulates the sale of appliances in California. The Appliance Efficiency Regulations include standards for both federally regulated appliances and non-federally regulated appliances. Twenty-three categories of appliances are included in the scope of these regulations. The standards within these regulations apply to appliances that are sold or offered for sale in California, except those sold wholesale in California for final retail sale outside the State and those designed and sold exclusively for use in recreational vehicles or other mobile equipment.[36]

Title 24 Energy Efficiency Standards

California Code of Regulations Title 24 Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings, was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases GHG emissions. The newest version of Title 24 adopted by the CEC went into effect on January 1, 2017.[37] The 2019 Building Energy Efficiency Standards went into effect on January 1, 2020. Buildings whose permit applications are dated on or after January 1, 2020, must comply with the 2019 Standards. The CEC updates the standards every three years. One of the notable changes in the 2019 Title 24 Standards includes the solar photovoltaic systems requirement for new low-rise residential homes.

Title 24 California Green Building Standards Code

California Code of Regulations, Title 24, Part 11 is a comprehensive and uniform regulatory code for all residential, commercial, and school buildings that went in effect January 1, 2011. The code is updated on a regular basis, with the most recent update consisting of the 2019 California Green

[36] Bay Area Air Quality Management District (BAAQMD). 2017. CEQA Air Quality Guidelines. May. Website: http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed February 2, 2021.

[37] California Energy Commission (CEC). 2016. 2016 Building Energy Efficiency Standards Frequently Asked Questions. Website: http://www.energy.ca.gov/title24/2016standards/rulemaking/documents/2016_Building_Energy_Efficiency_Standards_FAQ.pdf. Accessed February 2, 2021.

Building Code Standards that became effective January 1, 2020.[38] Local jurisdictions are permitted to adopt more stringent requirements, as State law provides methods for local enhancements. The State Building Code provides the minimum standard that buildings need to meet in order to be certified for occupancy, which is generally enforced by the local building official. The 2019 California Green Building Code Standards are also considered some of the most stringent energy efficiency and green building standards in the country.

Local

City of Tracy

City of Tracy General Plan

The City of Tracy General Plan contains several goals, objectives, and policies intended to facilitate the conservation of energy and improve energy efficiency in the City. Listed below are the General Plan goals, objectives and policies relevant to this analysis.

Goal OSC-5 Efficient use of resources throughout the City of Tracy

Objective OSC-5.1 Promote resource conservation.

Policies

Policy P1 The City shall promote development patterns and construction standards that conserve resources through appropriate planning, housing types and design, and energy conservation practices.

Policy P2 The City shall encourage landscaping that is water- and energy efficient.

Policy P3 The City shall encourage buildings to incorporate energy- and water-efficient technologies.

Policy P4 The City shall encourage buildings to incorporate energy- and water-efficient technologies.

Objective OSC-5.2 Ensure that development is designed for maximum energy efficiency.

Policies

Policy P1 New development projects should be designed for solar access and orientation. Maximum efficiency is gained by siting homes on an east–west axis.

Policy P2 New development projects should include measures to reduce energy consumption through site and building design, material selection and mechanical systems.

Policy P3 Use of on-site alternative energy sources, such as photovoltaic (PV) cells for commercial, residential, and industrial users shall be encouraged.

[38] California Building Standards Commission (CBC). 2016. Green Building Standards. Website: https://www.ladbs.org/docs/default-source/publications/code-amendments/2016-calgreen_complete.pdf?sfvrsn=6. Accessed February 2, 2021.

Policy P4 The City shall encourage buildings to incorporate energy- and water-efficient technologies.

Objective OSC-5.3 Promote sustainability and energy efficiency and conservation through the City's direct actions.

Policies

Policy P1 The City shall use local renewable energy resources when feasible.

Policy P2 New vehicles purchased and leased by the City should be alternatively fueled to the extent feasible. Common alternative fuel technologies include hybrid, electric biobased fuels and compressed natural gas (CNG).

Policy P3 The City shall consider including alternative energy systems such as solar thermal, photovoltaic and other clean energy systems in the design and construction of City facilities.

Policy P4 The City shall proactively support long-term strategies, State and federal legislation and partnerships that assure affordable and reliable production and delivery of electrical power to the community.

Policy P5 The City shall support public and private efforts to develop and operate alternative systems of wind, solar and other electrical production that take advantage of local renewable resources.

Policy P6 Future development projects shall consider the following design features, during the Specific Plan, PUD, subdivision, and design/development review: solar access and orientation, natural ventilation, energy efficient landscaping and energy efficient and conserving building design and technologies.

Policy P7 The City shall encourage, and support voluntary retrofit energy programs for residential, commercial, and industrial buildings, and shall encourage new or major rehabilitations of large nonresidential projects to incorporate renewable energy generation.

Policy P8 The City shall implement energy efficiency improvements for existing and future City facilities as opportunities arise.

Policy P9 City purchasing policies shall require purchase of energy efficient products, products that contain recycled materials, and products that reduce waste generated when feasible.

Policy P10 The City shall support land use patterns that maximize energy efficiency, both by minimizing transportation and by making use of existing capital improvements.

Goal AQ-1 Improved air quality and reduced greenhouse gas emissions.

Objective AQ-1.2 Promote development that minimizes air pollutant and greenhouse gas emissions and their impact on sensitive receptors as a result of indirect and stationary sources.

Policies

Policy P4 New development projects should incorporate energy efficient design features for HVAC, lighting systems and insulation that exceed Title 24.

Policy P5 Use of solar water and pool heaters is encouraged.

Policy P6 Installation of solar voltaic panels on new homes and businesses shall be encouraged.

Policy P7 Trees should be planted on the south- and west-facing sides of new buildings or building undergoing substantial renovation in order to reduce energy usage.

City of Tracy Sustainability Action Plan

The City of Tracy Sustainability Action Plan was adopted in 2011 to achieve sustainability in numerous sectors including GHG emissions, energy, and transportation and land use. The Sustainability Action Plan includes specific measures to be implemented that the City estimates will reduce GHG emissions by 378,461 to 482,154 metric tons (MT) of CO_2e. These reductions would come in part from reductions in Vehicle Miles Traveled (VMT) and energy consumption, with the relevant sustainability measures listed below.

Energy

E-1:Green Building Ordinance

Develop an incentives-based Green Building Ordinance that promotes energy efficient design for new buildings.

E-2: Energy Efficiency in Site Planning and Design

Amend the Zoning Ordinance, City Standards, or Subdivision Guidelines to do the following:

a) Establish measures that reduce energy use through solar orientation by taking advantage of landscaping and sunscreens.

b) Allow increased height limits and greater development flexibility in exchange for incorporating energy efficient green building practices. Provide permitting-related and other incentives for energy efficient building projects, for example by giving green projects priority in plan review, processing and field inspection services.

c) Establish guidelines for cool pavements and strategically placed shade trees.

d) Require all new development and major rehabilitation (i.e., additions of 25,000 square feet of office/retail commercial or 100,000 square feet of industrial floor area) projects to

incorporate any combination of the following strategies to reduce heat gain for 50 percent of the non-roof impervious site landscape, which includes sidewalks, courtyards, parking lots, and driveways: shaded within five years of occupancy; use of paving materials with a Solar Reflectance Index (SRI) of at least 29; open grid pavement system; or locating parking spaces under deck, under roof, or under a building.

e) Require outdoor lighting fixtures to be energy efficient. Require parking lot light fixtures and light fixtures on buildings to be on full cut-off fixtures, except emergency exit or safety lighting, and all permanently installed exterior lighting shall be controlled by adjustable timers. Prohibit continuous all night outdoor lighting in sports stadiums, construction sites, and rural areas unless they are required for security reasons.

f) Where feasible, increase solar access by requiring that new streets be designed so that the blocks have one axis within plus or minus 15 degrees of geographical east/west, and the east/west length of those blocks are at least as long, or longer, as the north/south length of the block. Areas with topological constraints, among others, may be excluded from this requirement.

E-3: Green Building and Energy Efficiency Design and Education

a) Amend the City of Tracy Design Goals and Standards to do the following:
   i. Integrate guidelines from the Green Building Ordinance.
   ii. Integrate guidelines related to cool pavements in the City Standards.
   iii. Balance tradeoffs between solar access and landscape tree shading.

b) Conduct the following public education and outreach campaigns:
   i. Provide information about green building, marketing, training, and technical assistance to property owners, development professionals, schools, and special districts.
   ii. Develop an "energy efficiency challenge" campaign for community residents or businesses.
   iii. Provide public education and publicity about renewable resources, energy efficiency and emissions reduction programs and incentives.

E-4: Energy Efficient Products and Retrofits

a) Partner with PG&E to do the following, using outside funds:
   i. Promote the use of energy efficient appliances that meet Energy Star standards when higher than Title 24.
   ii. Distribute compact fluorescent light (CFL) bulbs and/or fixtures to community members.
   iii. Offer a halogen torchiere lamp exchange to community members.
   iv. Promote energy efficiency audits of existing buildings to check, repair, and readjust heating, ventilation, air conditioning, lighting, water heating equipment, insulation and weatherization.
   v. Encourage energy audits to be performed when residential and commercial buildings are sold. Energy audits will include information regarding the opportunities for energy

efficiency improvements, and will be presented to the buyer. Commercial buildings are encouraged to be "benchmarked" using EPA's ENERGY STAR Portfolio Manager Tool.

vi. Encourage individualized energy management planning and related services for large energy users.

vii. Fund and schedule energy efficiency retrofits or "tune-ups" of existing buildings.

b) Support San Joaquin Valley Unified Air Pollution Control District's lawnmower exchange program for residents to exchange conventional gas-powered lawnmowers for electric and rechargeable battery-powered lawnmowers.

c) Encourage new development to provide exterior electrical outlets so that electric lawnmowers and other landscaping equipment can be sufficiently powered.

d) Encourage the installation of programmable thermostat timers.

e) Encourage the installation of energy efficient boilers.

E-5: Weatherization Assistance

Continue to fund weatherization projects for households that meet the income eligibility criteria by utilizing the Community Development Agency's Downtown Rehabilitation Loan and Grant programs.

E-6: Financing for Energy Efficiency and Renewable Energy Projects

Develop a program under AB 811 to offer innovative, low-interest financing for energy efficiency and renewable energy projects for existing and new development, including heating, ventilation, air conditioning, lighting, water heating equipment, insulation, weatherization, and solar.

E-7: Energy Efficient Retrofits for City Street Lights

Retrofit City streetlights to LED or induction lighting.

E-8: Solar Panel Installations on Municipal Facilities

Install solar panels on municipal facilities.

E-9: Energy Efficiency Settings for City Desktop Computers

Change the settings for all City desktop computers to achieve the following:

a) All monitors shall go into sleep mode after 15 minutes of inactivity.
b) All computers shall go into sleep mode after 90 minutes of inactivity. Install solar panels on municipal facilities.

Transportation and Land Use

T-1: Live-Work and Work-Live Uses

Amend the Zoning Ordinance to allow live-work and work-live uses in existing and future residential development and adopt more flexible home occupation requirements.

T-2: Reduced Parking Requirements

Amend the Zoning Ordinance to allow a reduction in parking requirements under the following circumstances:

a) Multiple uses with staggered parking demand
b) Actual demand lower than as required in code as demonstrated by a parking study
c) Proximity to bus stop/transit
d) Mixed use project
e) In-lieu fee in Downtown

T-3: Support for Bicycling

Promote bicycle usage through the following:

a) Continue to require bicycle parking for nonresidential and multi-family uses.
b) Amend the Zoning Ordinance to require shower facilities and dressing areas for significant new or redevelopment of nonresidential uses.
c) Create a bicycle-sharing program.
d) Provide bicycle parking near transit.

T-4: Support for Transit

Promote transit ridership through the following:

a) Add to the Transportation Master Plan, where justified by ridership and funding availability, an increase transit route coverage to within ½ mile of all residents in the developed city and to within ¼ mile of 75 percent of residents within new development areas.
b) Continue to implement the City's program to provide covered and partially enclosed shelters that are adequate to buffer wind and rain and with at least one bench at each existing public transit stop and to provide local public transit information in transit shelters.
c) Provide information to City employees through the Human Resources Department and the City's Transit Coordinator on commute alternatives and incentives, including carpool/vanpool programs, transit service schedules, transit vouchers, alternative work week plans, telecommuting options, and incentives that can be used to increase employee use of alternative modes or work schedules.
d) Work with the San Joaquin Regional Rail Commission to study the feasibility of creating rail service in Tracy's downtown.
e) Continue to provide Citywide door to door service for Americans with Disabilities Act (ADA) customers and seniors on the City's Tracer service.

f) Continue to run Tracer along commuter routes during peak times, providing remaining service to all the middle and high schools and high employment areas, such as the West Valley Mall.

g) Encourage affordable housing to be located in transit-oriented development whenever feasible.

T-5: Smart Growth, Urban Design and Planning

Promote pedestrian safety, neighborhood connectivity and walkable neighborhoods through the following:

a) Create development standards for commercial, office, and retail zones to promote a principal functional entry that faces a public street. In the Zoning Code, evaluate more restrictive parking requirements to achieve greater pedestrian connections between streets and building entrances. Require all new buildings within the Corridor Overlay Zone and the Village Center (VC) Zone to be located an appropriate distance from the street to promote walkability, such as 10 feet. Within these zones, increase use of windows or storefronts with views into the building along a minimum of portion of the ground floor building walls fronting the primary street, depending on the building context.

b) Amend the Municipal Code or create subdivision design standards to require all new development within applicable areas to do the following:
   i. Include an interconnected grid of collectors and arterials within the developed city and connecting to and through new development areas with the goal of ¼-mile to ½-mile minimum spacing of two- and four-lane roadways and minimal reliance on six-lane arterials.
   ii. Include at least one through-street and/or non-motorized right-of-way (non-motorized rights-of-way may count for no more than 10 percent of the total) intersecting the project boundary at least every 400 feet, or at existing abutting street intervals, whichever is less.
   iii. Have internal connectivity such that there are at least 200 intersections per square mile.

c) Amend the Zoning Ordinance to require adequate pedestrian access through all commercial, residential, and mixed-use development.

d) Amend the Zoning Ordinance or create new subdivision standards to require new projects to include a pedestrian or bicycle through-connection in any new cul-de-sacs, except where prohibited by topographical conditions.

e) Add to the Transportation Master Plan a program to close sidewalk gaps on key routes within the developed city, contingent on grant funding.

f) Establish a ½-mile walkability standard for residents to access goods, services, and recreational facilities.

T-6: Traffic Smoothing Through Congestion Management

Add to the Transportation Master Plan a program to implement traffic smoothing and congestion reduction at intersections along Eleventh Street, Grant Line Road, Schulte Road, Lammers Road, Tracy Boulevard, MacArthur Drive, and Chrisman Road corridors.

T-7: San Joaquin County Park and Ride Lot Master Plan Implementation

Implement the County's Park and Ride Lot Master Plan, which identifies key locations for park and ride lots in Tracy.

T-8: Alternative Transportation Choices for Students

Promote alternative transportation choices for students through the following:

a) Continue to provide free or reduced bus passes for school students.
b) Work with school districts to expand "Safe Routes to Schools" programs.
c) Work with school districts to create ridesharing or "walking school bus" programs for students.

T-9: Comprehensive Signal Coordination Program

Continue to implement a comprehensive signal coordination program for key routes in the developed city, connecting to and through new development areas and to the Interstate-205 interchanges. Include Intelligent Transportation System (ITS) elements to maximize effectiveness, such as adaptive traffic control, synchronized signals, transit and emergency signal priority, and other traffic flow management techniques.

T-10: Ramp Metering on Interstate 205

Work with Caltrans and San Joaquin Council of Governments (SJCOG) to implement ramp metering on Interstate 205 to minimize congestion-related GHG emissions from both through trips and trips generated by Tracy that use Interstate 205.

T-11: Increased Transit to Bay Area Cities and San Joaquin Valley Employment Centers

Work with regional transit agencies to increase the frequency and capacity of intercity buses connecting Tracy to Bay Area cities, Stockton, and other San Joaquin Valley employment centers.

T-12: Altamont Route Approval and Transit-Oriented Development Around Rail

Work with Altamont Corridor Express (ACE) and the High-Speed Rail Authority to approve the Altamont Route and achieve successful integration of rail transit into a transit-oriented development zone, including an intracity feeder bus system.

T-13: Reduce Commute Trips

Support regional efforts to reduce commute trips, including the following:

a) Support San Joaquin Valley Unified Air Pollution Control District requirements that large employers establish employee trip reduction programs such as Rule 9410.
b) Promote the San Joaquin Council of Governments Commute Connection program, which provides information about commute options and connects commuters for carpooling, ridesharing and other activities.

T-14: Parking Cash-Out Programs for Employees

Encourage businesses to offer parking cash-out programs and offer incentives to employees for giving up their employee provided parking space.

T-15: Reduced Commuting from Out of the Region

Develop a program that will do the following:

a) Encourage and support the development of satellite office space or "hoteling" space for use by employees of Bay Area firms who may be assigned to work temporarily in Tracy by offering development incentives to these types of projects. Incentives may include less restrictive height limit, setback, and parking requirements.
b) Conduct public education and outreach to promote telecommuting and/or offices/businesses from home.

T-16: Transit Passes for Residents and Employees of New Developments

The City shall provide transit passes valid for at least one year to each resident or employee of new development projects for a period of at least the first three years of project occupancy.

T-17: Increased Use of Low Carbon Fueled Vehicles

Conduct the following to promote the use of low carbon fueled vehicles:

a) Use the Zoning Ordinance to allow no/low carbon fueling stations as part of the "gas and service station" land use category.
b) Amend the Zoning Ordinance or City Standards to require new projects to provide parking spaces reserved for hybrid or electric vehicles (EVs), carpool, or car share vehicles.
c) Require dedicated parking spots for alternative fuel, hybrid, carpool, or car share vehicles in City parking lots and consider installing charging connections.
d) Encourage employers to create vanpool or shuttle programs for employees.
e) Encourage the use of hybrid and electric construction equipment and the use of alternative fuels for construction equipment.

f) Convert the municipal automotive fleet to cleaner fuels and lower emissions. Convert the municipal nonautomotive fleet to cleaner fuels and lower emissions where technologically possible.

T-18: Carbon Sequestration on Municipal Property

Develop a City program for maximizing carbon sequestration on municipal property through tree-planting.

T-19: Mixed-Use and Traditional Residential Development

Continue City efforts to develop specific areas of the city as follows:

a) Redevelop the Bowtie area with mixed use development.
b) Where appropriate, develop new neighborhoods based on traditional residential development patterns and mixed use in a variety of densities with a pedestrian-friendly network of streets and parks.

T-20: Employment-Generating and High-Density Infill Projects

Promote smart growth in Tracy through the following:

a) Increase the development of employment-generating uses, in particular in West Tracy areas.
b) Require mixed use nodes surrounded by high density development that transition to lower density development.
c) In keeping with the City's Growth Management Ordinance Guidelines, prioritize high density infill projects within Redevelopment Areas and Village Centers that have a high level of vehicular and pedestrian connectivity both internally and externally to the project through the allocation of Residential Growth Allotments.
d) Develop each phase of Tracy Hills with an appropriate mix of density and uses consistent with the Tracy Hills Specific Plan.
e) Develop each phase of new development in Tracy as close to existing development as practical and maximize the density and range of uses for each phase of development in a manner consistent with the applicable General Plan and Zoning designations.

T-21: Compressed Natural Gas Buses for the City's Fleet

Continue to use CNG buses for the City's bus fleet and evaluate the conversion of the bus fleet to diesel-electric hybrid.

3.6.4 - Impacts and Mitigation Measures

The City, in its discretion, is utilizing Appendix G to the State CEQA Guidelines as thresholds of significance for this proposed project. According CEQA Guidelines Appendix G, to determine whether

impacts related to energy are significant environmental effects, the following questions are analyzed and evaluated. Would the project:

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

b) Conflict with or obstruct a State or local plan for renewable energy or energy efficiency?

Approach to Analysis

A discussion of the proposed project's energy use is presented below. The proposed project's anticipated energy use was estimated, including natural gas, electricity, and fuel consumption (for vehicles traveling to and from the project), for project construction and operation. Energy calculations are included as part of Appendix E of this Draft EIR.

Impact Evaluation

Energy Use

Impact ENER-1: **The proposed project would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.**

Construction

For purposes of a conservative analysis, the anticipated construction schedule for all three phases of development was assumed to begin in April 2022 and conclude in March 2025. It is important to note that if the construction schedule were to move to later year(s), construction energy demand would likely decrease because of improvements in technology and more stringent regulatory requirements as older, less efficient equipment is replaced by newer and cleaner equipment. Even in a scenario where all three construction phases overlap, the impacts related to energy consumption would not be materially different from the phased construction analyzed here. That is because concurrent construction would not result in an increased use of fuel and electricity beyond that needed for a phased construction. The proposed project would require demolition, site preparation, grading, building construction, architectural coating, and paving activities. Project construction would require energy for the manufacture and transportation of building materials, preparation of the site (e.g., demolition, site clearing, and grading), and the actual construction of the buildings and other site improvements. Petroleum-based fuels such as diesel fuel and gasoline would be the primary sources of energy for these tasks.

The types of on-site equipment used during construction of the proposed project could include gasoline- and diesel-powered construction and transportation equipment, including trucks, bulldozers, frontend loaders, forklifts, and cranes. Construction equipment is estimated to consume a total of approximately 446,864 gallons of diesel fuel over the entire construction duration (Appendix E).

Fuel use associated with construction vehicle trips generated by the proposed project was also estimated; trips include construction worker trips, haul truck trips for material transport, and vendor trips for construction material deliveries. Fuel use from these vehicles traveling to/from the project

site was based on reasonable assumptions associated with (1) the projected number of trips the project would generate during construction, (2) average trip distances by trip type, and (3) fuel efficiencies estimated in the ARB Emissions Factors model (EMFAC) mobile source emission model. The specific parameters used to estimate fuel usage are included in Appendix E. In total, the proposed project is estimated to generate approximately 2,937,391 VMT and a combined approximately 155,123 gallons of gasoline and diesel for vehicle travel during construction.

Other equipment could include construction lighting, field services (office trailers), and electrically driven equipment such as pumps and other tools. Singlewide mobile office trailers, which are commonly used in construction staging areas, generally range in size from 160 square feet to 720 square feet. A typical 720-square-foot office trailer would consume approximately 21,562 kWh during the 3-year construction phase (Appendix E).

Limitations on idling of vehicles and equipment along with requirements that equipment be properly maintained would result in fuel savings. Similarly, compliance with applicable State laws and regulations would limit idling from both on-road and off-road diesel-powered equipment and are part of a comprehensive regulatory framework that is implemented by the ARB. Additionally, as a practical matter, it is reasonable to assume that the overall construction schedule and process would be designed to be as efficient as feasible in order to avoid excess monetary costs. For example, equipment and fuel are not typically used wastefully due to the added expense associated with renting the equipment, maintaining it, and fueling it. Therefore, the opportunities for further future efficiency gains during construction are limited. For the foregoing reasons, it is anticipated that the construction phase of the project would not result in wasteful, inefficient, and unnecessary consumption of energy. Construction-related energy impacts would be less than significant.

Operation

The proposed project would consume energy as part of building operations and transportation activities. Project energy consumption is summarized in Table 3.6-1.

Table 3.6-1: Estimated Annual Project Energy Consumption

Energy Consumption Activity	Annual Consumption (approximate)
Electricity Consumption	16,056,160 kWh/year
Natural Gas Consumption	21,072,650 kBTU/year
Total Fuel Consumption	805,478 gallons of gasoline and diesel

Notes:
kBTU = kilo-British Thermal Unit
kWh = kilowatt-hour
VMT = Vehicle Miles Traveled
Operational Fuel Consumption based on EMFAC2014 Emissions Inventory, Vehicle Classification (Fleet Mix) EMFAC2007 Categories. The calculations are for the year 2025 when the full buildout of the project is expected to be operational and for San Joaquin County, where the project site is located (Appendix E).

Operation of the proposed project would consume an estimated 16,056,160 kWh of electricity and an estimated 21,072,650 kBTU of natural gas on an annual basis. The proposed project's buildings would be designed and constructed in accordance with the City's latest adopted energy efficiency standards, which are based on the State's Title 24 Energy Efficiency Standards for Nonresidential Buildings and Green Building Code Standards. These standards include minimum energy efficiency requirements related to building envelope, mechanical systems (e.g., heating, ventilation, and air conditioning [HVAC] and water heating systems), and indoor and outdoor lighting, are widely regarded as the some of the most advanced and stringent building energy efficiency standards in the country. Moreover, as specified in Chapter 5, Part 11 of the Title 24 standards, the proposed project would be required to incorporate electrical conduit to facilitate future installation of EV charging infrastructure. In addition, as specified in Subchapter 6, Part 6 of the Title 24 standards, the proposed project would be required to design the proposed buildings to structurally accommodate future installation of a rooftop solar system. As such, the design of the proposed project would facilitate the future commitment to renewable energy resources. Therefore, building energy consumption would not be considered wasteful, inefficient, or unnecessary.

Project-related vehicle trips would consume an estimated 805,478 gallons of gasoline and diesel annually. In addition, the proposed project would include the installation of bicycle parking fixtures at 5 percent of the proposed automobile parking spaces, encouraging the use of alternative modes of transportation for worker commutes. Regional access to the project site is provided via US Interstate 205, which borders the project site. Moreover, as discussed in Section 3.14, Transportation, the proposed project would be required to implement various Transportation Demand Management (TDM) that would contribute to fuel savings through incentives for project staff to utilize non-motorized transportation modes. Thus, transportation fuel consumption would not be wasteful, inefficient, or unnecessary. Impacts would be less than significant.

Level of Significance

Less Than Significant Impact

Energy Efficiency and Renewable Energy Standards Consistency

Impact ENER-2: The proposed project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency.

The proposed project would be served with electricity provided by PG&E. In 2018, PG&E's electricity-generating portfolio contains 39 percent electricity generated from renewable sources. The utility is required to meet the future objective of 60 percent of electricity from renewable energy sources by 2030. The buildings would be designed in accordance with all applicable laws and regulations including the provisions of Title 24, California's Energy Efficiency Standards for Nonresidential Buildings and Title 24, Green Building Code Standards. These standards include minimum energy efficiency requirements related to building envelope, mechanical systems (e.g., HVAC and water heating systems), and indoor and outdoor lighting. The incorporation of the Title 24 standards into the design of the proposed project would ensure that the proposed project would not result in the use of energy in a wasteful manner.

The City's Sustainability Action Plan and General Plan contain goals, objectives and policies related to energy conservation that are relevant to this analysis as listed in Section 3.6.3 above. While several of these goals, objectives and policies are voluntary or cannot be implemented by an individual development project, compliance with applicable Title 24 standards would ensure that the proposed project would not conflict with any of the Sustainability Action Plan energy conservation policies related to the proposed project's building envelope, mechanical systems, and indoor and outdoor lighting.

The proposed project would be required to comply with applicable State energy standards and with energy conservation policies contained in the Tracy Sustainability Action Plan. As such, the proposed project would not conflict with or obstruct the applicable State plans and policies for renewable energy and energy efficiency. Impacts would be less than significant.

Level of Significance

Less Than Significant Impact

3.6.5 - Cumulative Impacts

The geographic scope of the cumulative energy analysis is the portion of PG&E's service area that covers incorporated and unincorporated San Joaquin County. Cumulative projects considered as part of this cumulative analysis include the project, other cumulative projects identified in Table 3-1 in Chapter 3, Environmental Impact Analysis, and other past, present, and reasonably foreseeable future projects within the PG&E service area that covers the incorporated and unincorporated areas of San Joaquin County.

Electricity and Natural Gas

During operation, cumulative projects would be required to comply with applicable provisions of Title 24 Building Energy Efficiency Standards and CALGreen. Specifically, the buildings and other improvements that would be constructed as part of the various cumulative projects would be required to be designed in accordance with Title 24, California's Energy Efficiency Standards for Residential and Nonresidential Buildings as applicable. These standards include minimum energy efficiency requirements related to building envelope, mechanical systems (e.g., HVAC and water heating systems), and indoor and outdoor lighting. Future cumulative development would also be required to meet even more stringent energy efficiency requirements through local and Statewide policy, such as Title 24, Part 6, which would require, for example, that newly constructed residential homes include on-site photovoltaic solar systems, with some exceptions. Furthermore, PG&E, which supplies electricity to the project site and vicinity, would be required by SB 100 to incrementally increase the proportion of renewable electricity generation supplying its in-state retail sales until it reaches 100 percent carbon-free electricity generation by 2045.

Electricity would also be consumed during construction of the cumulative projects from the use of construction trailers and any electrically driven equipment, vehicles, or tools. Electricity consumed during construction of the cumulative projects would also be subject to the renewable electricity generation requirements established by SB 100, as PG&E would be the anticipated electricity supplier for the cumulative project areas. The incorporation of these regulations into the design of

the cumulative projects would ensure that they would not result in the inefficient, unnecessary, or wasteful consumption of electricity or natural gas. and thus they would not have a significant cumulative impact.

Similarly, the proposed project's energy use would be limited to that which is necessary for the construction and operation of the proposed project. As discussed above, the proposed project would be required to comply with applicable Statewide and local policies and standards pertaining to energy efficiency and can reasonably be assumed to pursue greater energy efficiencies to the extent commercially practicable in its operation, in the interest of reducing operating costs. As such, the proposed project's incremental contribution to the less than significant cumulative impact would not be considerable with respect to energy consumption in the form of electricity and natural gas.

Fuel

Cumulative projects would be required to comply with California Code of Regulations Title 13, Sections 2449(d)(3) and 2485, that limit idling from both on-road and off-road diesel-powered equipment and are enforced by the ARB. Additionally, various federal and State regulations, including the LCFS, Pavley Clean Car Standards, and LEV Program, would serve to reduce the transportation fuel demand of cumulative projects. Compliance with these regulations by the cumulative projects would ensure that they would not result in the inefficient, unnecessary, or wasteful consumption of fuel and their cumulative impact would be less than significant.

As discussed in more detail above, the proposed project would consume vehicle fuel during both construction and operation. As previously discussed, the proposed project would also be required to use fuels which conform to various federal and State regulations, such as the LCFS, Pavley Clean Car Standards, and LEV Program. In addition, the proposed project would consume fuels in an amount necessary to construct and operate the proposed project and would not consume excessive amounts of fuel beyond what is necessary in the interest of avoiding unnecessary construction or operation costs. Therefore, the proposed project's incremental contribution to the less than significant cumulative impact would not be considerable with respect to the wasteful or inefficient use of energy.

Level of Cumulative Significance

Less Than Significant Impact

3.7 - Geology and Soils

3.7.1 - Introduction

This section describes the existing geology and soils setting and the potential effects from implementation of the Tracy Alliance Project (proposed project). The descriptions and analysis in this section are based, in part, on information provided in the Geotechnical Engineering Report prepared by Terracon Consultants, Inc. (Appendix F), the City of Tracy 2035 General Plan (General Plan), City of Tracy 2035 General Plan Environmental Impact Report (General Plan EIR), and the Northeast Industrial (NEI) Specific Plan. No comments were received during the Notice of Preparation (NOP) comment period related to Geology and Soils.

3.7.2 - Environmental Setting

Geologic Setting

San Joaquin County

San Joaquin County lies within the geologic region of California referred to as the Great Valley geomorphic province. The Great Valley geomorphic province is characterized by a long alluvial plain that extends approximately 400 miles through Central California. The Great Valley can be further divided into the northern Sacramento Valley and the southern San Joaquin Valley. The valleys were created as a result of the uplift of the two mountain ranges that flank them, the Coast Ranges to the west and the Sierra Nevada mountain range to the east.[1]

City of Tracy

The City of Tracy is located on the western margin of the Great Valley geologic province of California, adjacent to the Coast Range Province. Most of the City lies within the Great Valley between the Sierra Nevada geomorphic province to the east and the Coast Ranges to the west. These portions of the City fall into one of three categories of geomorphic unit: dissected uplands, low alluvial plains and fans, or river flood plains and channels.[2]

The southwestern portion of the City is located within the Diablo Range and generally consists of rolling hills cut by drainage channels. Starting from the vicinity of I-580 and proceeding northeast to the City, the topography flattens into the “low alluvial plains and fans” geomorphic unit. These gently sloping, broad fans are dissected by fewer drainage channels than the uplands. Surface water flow is directed to the northeast, except for engineered flow in human-made features such as the Delta-Mendota Canal and the California Aqueduct. Northeast of the canals, extending to the boundaries of the City Sphere of Influence (SOI), the “river flood plains and channels” geomorphic unit consists of relatively level topography, slightly sloping to the north.

[1] Environmental Science Associates. 2014. San Joaquin County 2035 General Plan EIR, page 4.I-1.
[2] City of Tracy. 1993. *Final Environmental Impact Report for the City of Tracy Urban Management Plan/General Plan 1993*, SCH No. 91092060, p. 249.

Project Site

The project site is located in the northeastern portion of the City and is part of the low alluvial plains and fans geomorphic unit.

Existing Soils

San Joaquin County

Different soil types exist within San Joaquin County that are closely associated with alluvial action and deposition. Sand to gravel soils have been deposited along waterways due to the ancient course of the San Joaquin River. Areas in between waterways are rich in fine grained clays and silts with extensive peat deposits present in the Delta. Silt and clay soils are fertile and support agriculture within San Joaquin County for a wide variety of crops. These fertile silts and clays pose some risk to structures, as they can be expansive and cause significant damage. Peat deposits are subject to compaction through extraction of groundwater, oil and gas, loading, or natural causes. Peat compaction can lead to subsidence and significant damage to structures.[3]

The Natural Resources Conservation Service of the United States Department of Agriculture has mapped the soils throughout the County as part of its soil survey program. According to the most recent soil survey data, a total of 183 different soil units have been identified within the County. Although no one unit is predominantly found within the area, the Tokay fine sandy loam and the Rindge Muck units are more widely found (at 3.6 and 3.4 percent of the total area) than any of the other units.[4]

City of Tracy

The dominant soil types found within the City and its SOI include Capay Clay and Capay-Urban Land Complex and Stomar Clay Loam. Other soil types within Tracy and its SOI include the following:[5]

- Calla-Carbona complex, 8 to 30 percent slopes (CGE/CZE)
- Carbona clay loam, 2 to 8 percent slopes (AC)
- Zacharias gravelly clay loam, 0 to 2 percent slopes (LR)
- Zacharias clay loam, 0 to 2 percent slopes (LS)

Project Site

As part of the Geotechnical Engineering Report prepared for the project site, Terracon conducted 41 test soil borings ranging in depth from 6.5 feet to 51.5 feet below ground surface (bgs). Based on those soil borings, the project site contains the following soil types: lean clay, soft to stiff fine grained soil, and silty sand. The lean clay soils range in depth from 3.5 feet to approximately 20 feet bgs. Below the surface clays were interbedded layers of silts, sands, and clays.[6] Terracon also conducted soil corrosivity testing on project site soils. Laboratory testing of soil samples determined that project site soils have a high sulfate level, which indicates the soil would be corrosive to concrete used in project building materials. Table 3.7-1 summarizes the corrosivity testing results.

[3] Environmental Science Associates. 2014. San Joaquin County 2035 General Plan EIR, page 4.I-3.
[4] Ibid.
[5] Design, Community, and Environment. 2005. City of Tracy General Plan Draft EIR (prepared for the City of Tracy), page 4.11-13
[6] Terracon. 2019. Geotechnical Engineering Report, page i.

Table 3.7-1: Soil Corrosivity Test Results

Soil Boring Number	Sample Depth (feet below ground surface level)	Soil Description	Soluble Sulfate (ppm)	Soluble Chloride (ppm)	Electrical Resistivity (Ω-cm)	pH
B1	1–2.5	Lean Clay	116	30	1164	8.04
B13	1–2.5	Lean Clay	234	70	970	7.98
B21/23	1–2.5	Lean Clay	278	60	970	7.87

Notes:
ppm = parts per million
Source: Terracon. 2019. Geotechnical Engineering Report.

Seismicity

The State of California is one of the most seismically active areas in the United States. The term seismicity describes the effects of seismic waves that are radiated from an earthquake fault in motion. While most of the energy released during an earthquake results in the permanent displacement of the ground, as much as 10 percent of the energy may dissipate immediately in the form of seismic waves. Seismicity can result in seismic-related hazards such as fault rupture, ground shaking, and liquefaction. Faults form in rocks when stresses overcome the internal strength of the rock, and fault rupture occurs when movement on a fault breaks through to the surface and can result in damage to buildings, infrastructure, and persons. Ground movement during an earthquake can vary depending on the overall magnitude, distance to the fault, focus of earthquake energy, and type of geologic material. The composition of underlying soils, even those relatively distant from faults, can intensify ground shaking. Strong ground shaking from an earthquake can result in damage, with buildings shifted off their foundations and underground pipes broken.

San Joaquin County

San Joaquin County is located in a region that lies between two areas of seismic activity. The main active faults near the County are associated with the San Andreas Fault System of the greater San Francisco Bay Area and the Marsh Creek-Greenville active fault located immediately west of the southern tip of the County.[7]

City of Tracy

The City of Tracy is located near several earthquake faults including the San Andreas, Calaveras, Hayward, and Greenville Faults. Exhibit 3.7-1 illustrates the proximity of the City to the closest earthquake faults. The California Geologic Survey does not list the City on its list of cities affected by Alquist-Priolo Earthquake Fault Zones.[8] The Tracy-Stockton Fault, a Pre-Quaternary fault that passes beneath the City is considered inactive.[9] An active fault is defined by the State Mining and Geology Board as one that has had surface displacement within Holocene time (about the last 11,000 years).

[7] Environmental Science Associates. 2014. San Joaquin County 2035 General Plan EIR, page 4.I-7.
[8] California Department of Conservation. No date. CGS Information Warehouse: Regulatory Maps. Website: https://maps.conservation.ca.gov/cgs/informationwarehouse/regulatorymaps/. Accessed April 6, 2020.
[9] Design, Community, and Environment. 2005. City of Tracy General Plan Draft Environmental Impact Report (prepared for the City of Tracy), page 4.11-7

The City has a low-to-moderate seismic history; the largest recorded measurable magnitude earthquake in the City measured 3.9 on the Richter Scale.[10]

Project Site

The project site is located northwest and adjacent to the City. As such, the project site is not located within an Alquist-Priolo Earthquake Fault Zone and no known active faults cross the site.

Slope Disturbance

Slope disturbance from long-term geologic cycle of uplift, mass wasting, intense precipitation or wind, and gravity can result in slope failure in the form of mudslides and rock fall. Mass wasting refers to a variety of erosional processes from gradual downhill soil creep to mudslides, debris flows, landslides, and rock fall—processes that are commonly triggered by intense precipitation or wind, which varies according to climactic shifts. Often, various forms of mass wasting are grouped together as landslides, which are generally used to describe the downhill movement of rock and soil. Soil creep is a long-term, gradual downhill migration of soil under the influence of gravity and is generally on the order of a fraction of an inch per year. These soils can creep away downslope sides of foundations and reduce lateral support.

Liquefaction is another earthquake hazard that can result in slope disturbance. Liquefaction is a transformation of soil from a solid to a liquefied state during which saturated soil temporarily loses strength resulting from the buildup of excess pore water pressure. Soil susceptible to liquefaction includes loose to medium dense sand and gravel, low-plasticity silt, and some low-plasticity clay deposits. Four kinds of ground failure commonly result from liquefaction: lateral spread, flow failure, ground oscillation, and loss of bearing strength.[11]

San Joaquin County

San Joaquin County is expected to experience slope disturbance and seismic hazards associated with ground shaking caused by earthquakes. The main seismic hazards in the County are ground shaking, liquefaction, and earthquake induced settlement.[12]

City of Tracy

While there are seismically active faults outside of the Tracy Planning Area that can cause ground shaking within the City and its SOI, there are no known active faults within the City limits. The largest recorded measurable magnitude earthquake in Tracy was measured as 3.9 on the Richter Scale. A magnitude of 3.9 does not typically cause damage. The northern portion of the City has soils that have a low liquefaction potential. However, the south-central portion of the City is moderately susceptible to liquefaction due to loose, coarse-grained soil deposits.[13] The City contains a low risk for landslides due to its relatively level elevation. The only areas in the City potentially susceptible to

[10] Pacific Municipal Consultants. 1996. Northeast Industrial Concept Development Plan Draft Environmental Impact Report (prepared for the City of Tracy), page 4.16.
[11] Environmental Science Associates. 2014. San Joaquin County 2035 General Plan EIR, page 4.I-11.
[12] Ibid.
[13] Design, Community, and Environment. 2005. City of Tracy General Plan Draft Environmental Impact Report (prepared for the City of Tracy, page 4.11-12.

landslides are the foothill areas in the southwest portion of the City and along riverbanks.[14] The City of Tracy contains expansive soils due to the clay-type soils located throughout the City and its SOI. In particular, areas in the northern and western portions of the City as well as soils in the vicinity of I-580 have high shrink/swell potential.

Project Site

The project site is relatively flat and low in elevation (approximately 15-30 feet above mean sea level) with a gentle topographic slope in the northeast direction.[15] The project site does not contain active faults that would cause geologic uplifting, ground rupture; nor does the site contain steep slopes that would be susceptible to landslides. The project site is not designated as a liquefaction zone as identified by the California Geologic Survey (CGS). However, the project site would be susceptible to liquefaction because the project site contains layers of relatively loose sandy and clay soils, which contain properties that are susceptible to liquefaction.[16]

Paleontological Resources

San Joaquin County

The majority of paleontological resources from San Joaquin County have been found in rock formations in the foothills of the Diablo Mountain Range. However, such resources could be found anywhere in the County, especially along watercourses such as the San Joaquin River and its tributaries.[17]

City of Tracy

The Neroly Formation, Moreno Shale deposits, and Panoche Formations could be indicators of potential paleontological resources. According to a records search of the University of California Museum of Paleontology (UCMP) Collections, 80 fossils have been found and recorded within San Joaquin County. Over half of them are dated to the Tertiary period, with quaternary being the second most frequent period. These are the first and second periods of the Cenozoic Era respectively, during which modern flora, apes, large mammals, and eventually humans developed. The majority of fossils found within the City and its SOI have been vertebrate in nature. Additionally, one paleobotany fossil and one microfossil have been found. Sites are mainly located south of I-205, along the I-580 corridor and the Delta-Mendota Canal; some clustering is found in the southwest portion of the City, in the slopes of the Diablo Range foothills.[18]

Project Site

A Paleontological Records Search was conducted for the project site by Kenneth L. Finger, PhD (Appendix F) on April 3, 2020.[19] The project site and all areas within the standard 0.5-mile search

[14] Design, Community, and Environment. 2005. City of Tracy General Plan Draft Environmental Impact Report (prepared for the City of Tracy, page 4.11-12.
[15] Terracon Consultants, Inc. 2018. Phase I Environmental Site Assessment: Tracy Ridge. December 21.
[16] Terracon. 2019. Geotechnical Engineering Report, page 16.
[17] Environmental Science Associates. 2014. San Joaquin County 2035 General Plan EIR, page 4.E-2.
[18] Design, Community, and Environment. 2005. City of Tracy General Plan Draft Environmental Impact Report (prepared for the City of Tracy, page 4.5-9.
[19] Finger, Kenneth L., Ph.D. 2020. Paleontological Records Search: Tracy Alliance Project. April.

area are located on an extensive geologic unit of unnamed alluvial fan deposits (Qf) Just north of the search area, the younger Dos Palos Alluvium (Qdp) is surficial.

3.7.3 - Regulatory Framework

Federal

National Earthquake Hazards Reduction Program

The National Earthquake Hazards Reduction Program (NEHRP) was established by the United States Congress when it passed the Earthquake Hazards Reduction Act of 1977, Public Law 95–124. In establishing the NEHRP, Congress recognized that earthquake-related losses could be reduced through improved design and construction methods and practices, land use controls and redevelopment, prediction techniques and early warning systems, coordinated emergency preparedness plans, and public education and involvement programs. The four basic goals remain unchanged:

- Develop effective practices and policies for earthquake loss reduction and accelerate their implementation.
- Improve techniques for reducing earthquake vulnerabilities of facilities and systems.
- Improve earthquake hazards identification and risk assessment methods, and their use.
- Improve the understanding of earthquakes and their effects.

Several key federal agencies contribute to earthquake mitigation efforts. There are four primary NEHRP agencies:

- National Institute of Standards and Technology of the Department of Commerce
- National Science Foundation
- United States Geological Survey (USGS) of the Department of the Interior
- Federal Emergency Management Agency (FEMA) of the Department of Homeland Security

Implementation of NEHRP priorities is accomplished primarily through original research, publications, and recommendations to assist and guide state, regional, and local agencies in the development of plans and policies to promote safety and emergency planning.

National Pollutant Discharge Elimination System

The National Pollutant Discharge Elimination System (NPDES) permit program, authorized by Section 402(p) of the federal Clean Water Act, controls water pollution by regulating point sources, such as construction sites and industrial operations that discharge pollutants into waters of the United States. A Storm Water Pollution Prevention Plan (SWPPP) is required to control discharges from a project site, including soil erosion, to protect waterways. A SWPPP describes the measures or practices to control discharges during both the construction and operational phases of the project. A SWPPP identifies project design features and structural and nonstructural Best Management Practices (BMPs) that will be used to control, prevent, remove, or reduce stormwater pollution from the site, including sediment from erosion.

Society of Vertebrate Paleontology Guidelines

The Society of Vertebrate Paleontology (SVP), a national scientific organization of professional vertebrate paleontologists, has established standard guidelines that outline acceptable professional practices in the conduct of paleontological resource assessments and surveys, monitoring and mitigation, data and fossil recovery, sampling procedures, specimen preparation, analysis, and curation. Most practicing professional Paleontologists in the nation adhere to the Society of Vertebrate Paleontology's assessment, mitigation, and monitoring requirements, as specifically spelled out in its standard guidelines.[20]

State

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act (Public Resources Code [PRC] §§ 2621 to 2630) was passed in 1972 to provide a Statewide mechanism for reducing the hazard of surface fault rupture to structures used for human occupancy. The main purpose of the Act is to prevent the siting of buildings used for human occupancy across the traces of active faults. It should be noted that the Act addresses the potential hazard of surface fault rupture and is not directed toward other earthquake hazards, such as seismically induced ground shaking or landslides.

The law requires the State Geologist to identify regulatory zones (known as Earthquake Fault Zones or Alquist-Priolo Zones) around the surface traces of active faults, and to depict these zones on topographic base maps, typically at a scale of 1 inch to 2,000 feet. Earthquake Fault Zones vary in width, although they are often 0.75-mile wide. Once published, the maps are distributed to the affected cities, counties, and State agencies for their use in planning and controlling new or renewed construction. Except for single-family wood-frame and steel-frame dwellings that are not part of a larger development (i.e., four units or more), local agencies are required to regulate development within the mapped zones. In general, construction within 50 feet of an active fault zone is prohibited.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act (PRC §§ 2690–2699.6), which was passed in 1990, addresses earthquake hazards other than surface fault rupture. These hazards include strong ground shaking, earthquake induced landslides, liquefaction, or other ground failures. Much like the Alquist-Priolo Earthquake Fault Zoning Act discussed above, these seismic hazard zones are mapped by the State Geologist to assist local government in the land use planning process. The Act states, "it is necessary to identify and map seismic hazard zones in order for cities and counties to adequately prepare the safety element of their general plans and to encourage land use management policies and regulations to reduce and mitigate those hazards to protect public health and safety." The Act also states, "cities and counties shall require, prior to the approval of a project located in a seismic hazard zone, a geotechnical report defining and delineating any seismic hazard."

[20] The Society of Vertebrate Paleontology (SVP). 2010. Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources. Website: http://vertpaleo.org/the-Society/Governance-Documents/SVP_Impact_ Mitigation_Guidelines.aspx.

California Building Code

The State of California provides minimum standards for building design through the California Building Standards Code (California Code of Regulations [CCR], Title 24). Where no other building codes apply, Chapter 29 regulates excavation, foundations, and retaining walls. The California Building Standards Code (CBC) applies to building design and construction in the State and is based on the federal Uniform Building Code (UBC) used widely throughout the country (generally adopted on a state-by-state or district-by-district basis). The CBC has been modified for California conditions with more detailed and/or more stringent regulations.

The State earthquake protection law (California Health and Safety Code § 19100 *et seq.*) requires that structures be designed to resist stresses produced by lateral forces caused by wind and earthquakes. Specific minimum seismic safety and structural design requirements are set forth in Chapter 16 of the CBC. The CBC identifies seismic factors that must be considered in structural design. Chapter 18 of the CBC regulates the excavation of foundations and retaining walls, and Appendix Chapter A33 regulates grading activities, including drainage and erosion control and construction on unstable soils, such as expansive soils and areas subject to liquefaction.

The CBC contains specific requirements for seismic safety, excavation, foundations, retaining walls, and site demolition. It also regulates grading activities, including drainage and erosion control (Chapter 18, Appendix J). City of Tracy Ordinance 1247 adopts the 2019 Building and Fire Codes and amends the code to address local conditions.

Local Regulations

City of Tracy General Plan

The General Plan establishes the following guiding and implementing policies associated with geology, soils, and seismicity that are relevant to this analysis:

General Plan Safety Element

Goal SA-1 A reduction in risks to the Community from earthquakes and other geologic hazards.

Objective SA-1.1 Minimize the impacts of geologic hazards on land development.

Policies

Policy P1 Underground utilities, particularly water and natural gas mains, shall be designed to withstand seismic forces.

Policy P2 Geotechnical reports shall be required for development in areas where potentially serious geologic risks exist. These reports should address the degree of hazard, design parameters for the project based on the hazard, and appropriate mitigation measures.

Objective SA-1.2 Implement measures related to site preparation and building construction that protect life and property from seismic hazards.

Policies

Policy P1 All construction in Tracy shall conform to the California Building Code and the Tracy Municipal Code including provisions addressing unreinforced masonry buildings.

Objective CC-3.1 Identify and preserve cultural and historic resources.

Policies

Policy P5 Any archaeological or paleontological resources on private property shall be either preserved on their sites or adequately documented and conserved as a condition of removal. If any resources are found unexpectedly during development, then construction must cease immediately until accurate study and conservation. measures are implemented.

City of Tracy Municipal Code

Chapter 9.04–Building Code

The City adopted the 2016 CBC and included it in Municipal Code Chapter 9.04. Municipal Code Section 9.04.030, Permits, incorporates the 2016 California Building Code including Volumes 1 and 2 and Appendices C, F, H and K by reference, which applies to new construction and alterations within city limits. New development is required to adhere to building code requirements and industry standard seismic safety building practices.

Chapter 11.28–Water Management

Chapter 11.28.410, Grading Design Plan, requires a grading plan to be submitted as part of a Landscape Documentation Package. The grading plan would be created to minimize soil erosion, runoff, and water waste. The City requires grading design plans to include measures to prevent excessive erosion and runoff from entering surface water systems, and recommend that project applicants:

(A) Grade so that all irrigation and normal rainfall remains within property lines and does not drain on to non-permeable hardscapes;

(B) Avoid disruption of natural drainage patterns and undisturbed soil; and

(C) Avoid soil compaction in landscape areas.

Chapter 11.34–Construction Activity Stormwater Measures

Chapter 11.34.220, Construction Activity Stormwater Measures, requires projects that request a building permit to comply with State stormwater requirements and submit a SWPPP. In addition, this Chapter requires that projects maintain a copy of the SWPPP on-site for verification by a City inspector.

3.7.4 - Impacts and Mitigation Measures

Significance Criteria

The City is using Appendix G of the State California Environmental Quality Act (CEQA) Guidelines as thresholds of significance for this project. According to CEQA Guidelines, Appendix G Environmental Checklist, to determine whether impacts to geology and soils are significant environmental effects, the following questions are analyzed and evaluated. Would the proposed project:

a) 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?
    iv. Landslides?
b) Result in substantial soil erosion or the loss of topsoil?
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Approach to Analysis

Impacts related to geology and soils were determined by reviewing information contained in the Geotechnical Engineering Report and a Paleontological Records Search prepared for the project site, both of which are provided in Appendix F.

As part of the Geotechnical Engineering Report, Terracon performed a field exploration of the project site as summarized in the project-specific Geotechnical Report dated January 30, 2019, (Appendix F). Terracon conducted 41 test soil borings, ranging in depth from 6.5 to 51.5 feet bgs and conducted 13 Cone Penetration Tests (CPTs) at depths ranging from 20.5 to 50.5 feet bgs. The laboratory testing results and specific locations of the test borings and CPTs are included in the Geotechnical Engineering Report. Published geologic and geotechnical information that summarizes the site conditions were also reviewed.

Additional evaluations of potential geologic and soil impacts of the project site were based on review of available documentation, including General Plan EIR; the Association of Bay Area Governments (ABAG), and California Geological Survey.

Impacts to paleontological resources were determined by reviewing the Paleontological Records Search prepared by Dr. Kenneth Finger, a consulting Paleontologist. Dr. Finger performed a records search on the UCMP database for the project site.[21]

Impacts Evaluation

Earthquakes

Impact GEO-1: **The proposed project could 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.

iv) Landslides.

Construction

Impacts related to risks associated with seismic-related hazards are limited to operational impacts. No respective construction impacts would occur.

Operation

i) Ground Rupture

Based on Geotechnical Engineering Report (Appendix F), the potential for ground rupture is low. There are no known active faults directly crossing the project site or the City of Tracy, and neither the project site nor the City is located within a designated Alquist-Priolo Earthquake Fault Zone. The closest fault to the project site is the San Joaquin Fault located in the southeast portion of the City approximately 7 miles away, precluding the potential for ground rupture to occur. Therefore, no impact related to fault rupture would occur.

ii) Strong Seismic Ground Shaking

The project site is located in a seismically active region that could experience strong ground shaking during a seismic event. It could experience significant ground shaking from maximum credible earthquakes occurring on the Calaveras, Hayward, San Andreas, or Greenville Faults. The intensity of future shaking will depend on the distance to the earthquake epicenter, magnitude of the earthquake, and the response of the underlying soil and bedrock. This represents a potentially significant impact.

[21] Finger, Kenneth L., Ph.D. 2020. Paleontological Records Search: Tracy Alliance Project. April.

The Geotechnical Engineering Report provided recommendations for excavation, foundation type, and building material in order to ensure new construction associated with the proposed project can withstand strong to very strong ground shaking. Mitigation Measure (MM) GEO-1 would ensure that implementation of the proposed project would incorporate recommendations contained in the Geotechnical Engineering Report as well as all applicable seismic safety building standards contained in the CBC including seismic design provisions, which would reduce the risk of loss, injury or death. Furthermore, compliance with General Plan Policy P2 and Chapter 9.02 of the Municipal Code requires all construction to conform to the most recent edition of the CBC. As such, with implementation of MM GEO-1 and compliance with other applicable policies, requirements and standards, the proposed project would not expose people or structures to substantial adverse effects associated with seismic ground shaking. Therefore, impacts would be less than significant with mitigation.

iii) Seismic-related Ground Failure

The project site is not listed as a liquefaction hazard zone by the CGS; however, the Geotechnical Engineering Report determined that on-site soils are susceptible to liquefaction because of the shallow groundwater depth and soil conditions. The Geotechnical Engineering Report provided liquefaction modeling and determined that the project site could experience up to 1 inch of soil settlement. If unmitigated, soil settlement could cause building foundations to crack and risk the loss of life and property, a potentially significant impact.

In order to reduce or avoid impacts related to liquefaction or other seismic-related ground failure, the Geotechnical Engineering Report included earthwork recommendations that contained criteria for grading, excavation, and fill replacement. The recommendations included criteria for site preparation, fill material types, and fill compaction that would reduce the potential for soil settlement to the maximum extent practicable. Implementation of MM GEO-1 would ensure that the recommendations contained in the Geotechnical Engineering Report are incorporated into the proposed project construction and design plans. Therefore, impacts related to seismic-related ground failure risk would be less than significant with mitigation.

iv) Landslides

Susceptibility to landslide risk is increased where a property contains steep slopes, exposed hillsides or near-vertical cuts often found near creek banks. The project site does not contain steep slopes, exposed hillsides, or vertical cuts. Because of the gently sloping nature of the project site, it does not contain a significant potential for landslides. As a result, implementation of the proposed project would not expose people or structures to a landslide hazard, and impacts related to landslides would be less than significant.

Level of Significance Before Mitigation

Potentially Significant Impact

Mitigation Measures

MM GEO-1 Prepare Grading and Construction Plans that Incorporate Geotechnical Engineering Report Recommendations

Prior to issuance of the grading permits for the proposed project, development of the final grading, foundation, and construction plans shall incorporate the site-specific earthwork, foundation, floor slab, lateral earth pressure, and pavement design recommendations, as detailed in the Geotechnical Engineering Report prepared by Terracon dated January 30, 2019. The applicant(s) for development of individual development proposal(s) within the project site shall each coordinate with a City-approved Geotechnical Engineer and Engineering Geologist to tailor the grading and foundation plans for the relevant development proposal, as needed, to reduce risk related to known soil and geologic hazards. The final grading and construction plans for the relevant development proposal shall be reviewed by the City-approved Geotechnical Engineer to confirm compliance with this MM GEO-1.

Grading operations shall meet the applicable requirements of the recommendations included in the Geotechnical Engineering Report prepared by Terracon on January 30, 2019. During construction, the City-approved Geotechnical Engineer shall monitor construction of the relevant development proposal to ensure the earthwork operations are properly performed in accordance with the foregoing recommendations.

Level of Significance After Mitigation

Less Than Significant Impact

Soil Erosion or Topsoil Loss

Impact GEO-2:	**The proposed project would not result in substantial soil erosion or the loss of topsoil.**

Construction

During construction, the proposed project would include grading and excavation that would expose approximately 500,000 cubic yards of soils. The proposed project would disturb at least 1 acre of land and therefore would be required to obtain a Construction General Permit from the State Water Resources Control Board (State Water Board), consistent with the City's General Permit (No. CAS000004) and to comply with its conditions and requirements, which are designed to minimize potential erosion issues. Consistent with Chapter 11.34 of the Municipal Code, compliance with the City's NPDES permit would ensure the applicant(s) for individual development proposals within the project site would each obtain and implement a SWPPP in connection with the individual development proposal at issue where BMPs are implemented that would prevent sediments and other pollutants from entering the stormwater system. Additionally, compliance with Municipal Code Chapter 11.28 would ensure that each relevant development proposal would obtain and implement a grading plan during construction, which would prevent significant erosion of soils. Therefore, with adherence to these existing requirements, impacts from construction would not result in substantial soil erosion or loss of topsoil. Therefore, construction-related impacts related to soil erosion and loss of topsoil would be less than significant.

Operation

Impacts related to soil erosion or loss of topsoil are limited to construction impacts. No respective operational impacts would occur.

Level of Significance

Less Than Significant Impact

Unstable Geologic Location

Impact GEO-3:	**The proposed project could 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.**

Construction

Impacts related to risks associated with location on an unstable geologic unit or soil are limited to operational impacts. No respective construction impacts would occur.

Operation

As discussed previously in Impact GEO-1(iii), the Geotechnical Engineering Report (Appendix F) identified soils that could be expected to experience up to 1 inch of liquefaction-induced settlement. Any such settlement across the project site would represent a significant impact. Additionally, project site soils would be corrosive to concrete used in building foundations and slabs, which could result in unstable building conditions leading to building collapse or damage. This is a potentially a significant impact.

In order to reduce or avoid impacts related to unstable soils, corrosive soils, or other seismic-related ground failure, the Geotechnical Engineering Report included earthwork recommendations. These recommendations included criteria for grading, excavation, and fill replacement that would prevent significant settlement of soils. In addition, the recommendations included concrete mix specifications that would prevent significant impacts from corrosive soils. Implementation of MM GEO-1 would ensure that the recommendations contained in the Geotechnical Engineering Report are incorporated into the project construction and design plans. Therefore, impacts related to seismic-related ground failure risk would be less than significant with mitigation.

Level of Significance Before Mitigation

Potentially Significant Impact

Mitigation Measures

Implement MM GEO-1

Level of Significance After Mitigation

Less Than Significant Impact

Expansive Soil

Impact GEO-4: The proposed project could be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.

Construction

The Geotechnical Engineering Report determined that expansive soils exist on-site. Without mitigation, the near-surface stiff to hard medium plasticity lean clay and high plasticity clay could become unstable during construction activity and after precipitation events, a potentially significant impact. The Geotechnical Engineering Report includes recommendations for site preparation, excavation, and replacement fill that would include ground modifications that would spread out the loads from foundations and reduce the influence of the construction loads on soft soil layers, thus reducing the potential for unacceptable settlements. In addition, the Geotechnical Engineering Report provides options for providing stable foundations by including building floor slabs with foundation systems on a minimum of 18 inches of lime treated subgrade, or excavation and replacement with engineered fill or a sand/slurry mixture.[22] Implementation of MM GEO-1 would ensure recommendations contained in the Geotechnical Engineering Report are included in the grading plans and design of the proposed project. Therefore, impacts related to expansive soils would be less than significant with mitigation.

Operation

The Geotechnical Engineering Report determined that expansive soils exist on-site. The near-surface stiff to hard medium plasticity lean clay and high plasticity clay could become unstable after precipitation events. Additionally, these soils have the potential to swell and shrink as they gain and lose moisture, which could cause building foundations to crack or heave, resulting in substantial risks to life or property, which represents a potentially significant impact. However, the Geotechnical Engineering Report includes recommendations for site preparation, excavation, and foundation design that would address the site-specific conditions. Implementation of MM GEO-1 would ensure recommendations contained in the Geotechnical Engineering Report are included in the design of the proposed project. Therefore, impacts related to expansive soils would be less than significant with mitigation.

Level of Significance Before Mitigation

Potentially Significant Impact

Mitigation Measures

Implement MM GEO-1

Level of Significance After Mitigation

Less Than Significant Impact

[22] Terracon. 2019. Geotechnical Engineering Report, page 5.

Wastewater Disposal Systems

Impact GEO-5: The proposed project would not 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.

Construction

Impacts related to soil capability of supporting the use of alternative wastewater disposal systems are limited to operational impacts. No respective construction impacts would occur.

Operation

All development on the project site would connect to the City's wastewater collection system and no alternative wastewater disposal system would be operated. Furthermore, General Plan Objective 7.3 requires that new development within the City demonstrate adequate wastewater treatment for the proposed project. Wastewater treatment capacity impacts are discussed further under Section 3.16, Utilities and Service Systems. Thus, there would be no operational impact related to soil capability of supporting the use of alternative wastewater disposal systems.

Level of Significance

No Impact

Impact GEO-6: The proposed project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Construction

The Paleontological Report (Appendix F) concluded that the project site is located on Holocene alluvium, which is too young to be fossiliferous. The valley fill on the project site is at least hundreds of feet thick; thus, subsurface late Pleistocene or older deposits, which have the potential to be fossiliferous, are located at depths well below any excavation required for project construction.[23] Additionally, the Paleontological Report states that the closest paleontological resources to the project site were microfossils uncovered 7 miles to the east.

However, while it is unlikely that paleontological resources exist within or near the project site, there is always the possibility that subsurface construction activities associated with the proposed project, such as grading or trenching, could potentially damage or destroy previously undiscovered paleontological resources, which is a potentially significant impact. MM GEO-6 specifies the procedures to follow in the event a paleontological resource is uncovered. As a result, the proposed project would not directly or indirectly destroy a unique paleontological resource or feature with the implementation of MM GEO-6, and impacts would be less than significant with mitigation.

Operation

Impacts related to the potential to cause substantial adverse change in the significance of a unique paleontological resource or unique geologic feature are limited to construction. No respective operational impacts would occur.

[23] Kenneth L. Finger, PhD, Consulting Paleontologist. Paleontological Records Search. April 3,2020.

Level of Significance Before Mitigation

Potentially Significant Impact

Mitigation Measures

MM GEO-6 Inadvertent Discovery of Paleontological Resources During Project Construction

In the event a fossil is discovered during construction for the proposed project, excavations within 50 feet of the find shall be temporarily halted or delayed until the discovery is examined by a qualified paleontologist in accordance with Society of Vertebrate Paleontology standards. The applicants for development of individual proposals within the project site shall each include a standard inadvertent discovery clause in every proposed project-related construction contract to inform their respective contractors of this requirement. If the find is determined to be significant and if avoidance is not feasible, the paleontologist shall design and implement a data recovery plan that is consistent with the applicable Society of Vertebrate Paleontology standards. Any recovered fossil should be deposited in an appropriate repository, such as the UCMP, where it will be properly curated and made accessible for future studies.

Level of Significance After Mitigation

Less Than Significant Impact

3.7.5 - Cumulative Impacts

The geographic scope of the cumulative geology and soils analysis is the project site and its vicinity. This is because adverse effects associated with many geological and soils issues tend to be localized; therefore, an area generally within a 0.5-mile radius of the project site would be the area most affected by such activities for purposes of this cumulative analysis. Chapter 3, Environmental Impact Analysis, Table 3-1, Cumulative Project No. 35 and Cumulative Project No. 19 would be within 0.5 mile of the project site. The cumulative setting includes Cumulative Projects No. 19 and No. 35, along with existing agricultural and industrial uses.

Seismic-related Hazards

Cumulative projects have the potential to experience strong ground shaking from earthquakes, and would be exposed to the same ground shaking hazards and likewise would be subject to the same requirements under the comprehensive regulatory framework. Cumulative projects would be required to adhere to the applicable provisions of the CBC, and policies of the General Plan and Tracy Municipal Code reducing potential hazards associated with seismic ground shaking and ground failure. As such, cumulative impacts would be less than significant.

Additionally, as discussed above, the proposed project would not have a significant impact in this regard, with incorporation of the identified mitigation. Therefore, the proposed project, in conjunction with other cumulative projects, would not result in a cumulatively considerable contribution to a cumulative impact associated with seismic-related hazards.

Soil-related Hazards

Soil conditions associated with the proposed project, such as differential settlement, liquefaction, expansive soils, and soil creep, are specific to the project site and generally do not contribute to a cumulative effect. Some or all other cumulative projects may have similar conditions, but they also would not contribute to a general geologic or soil cumulative effect. Therefore, there is no potentially significant cumulative impact. Furthermore, the proposed project would be subject to all applicable General Plan policies, Municipal Code provisions, and the CBC, as well as being required to implement the required mitigation, all of which would reduce soil-related hazard impacts to a less than significant level. Other cumulative projects would similarly be required to adhere to standards and practices that include stringent geologic and soil-related hazard mitigations. As such, the proposed project, in conjunction with other cumulative projects, would not result in a cumulatively considerable contribution to a cumulative impact associated with soil-related hazards.

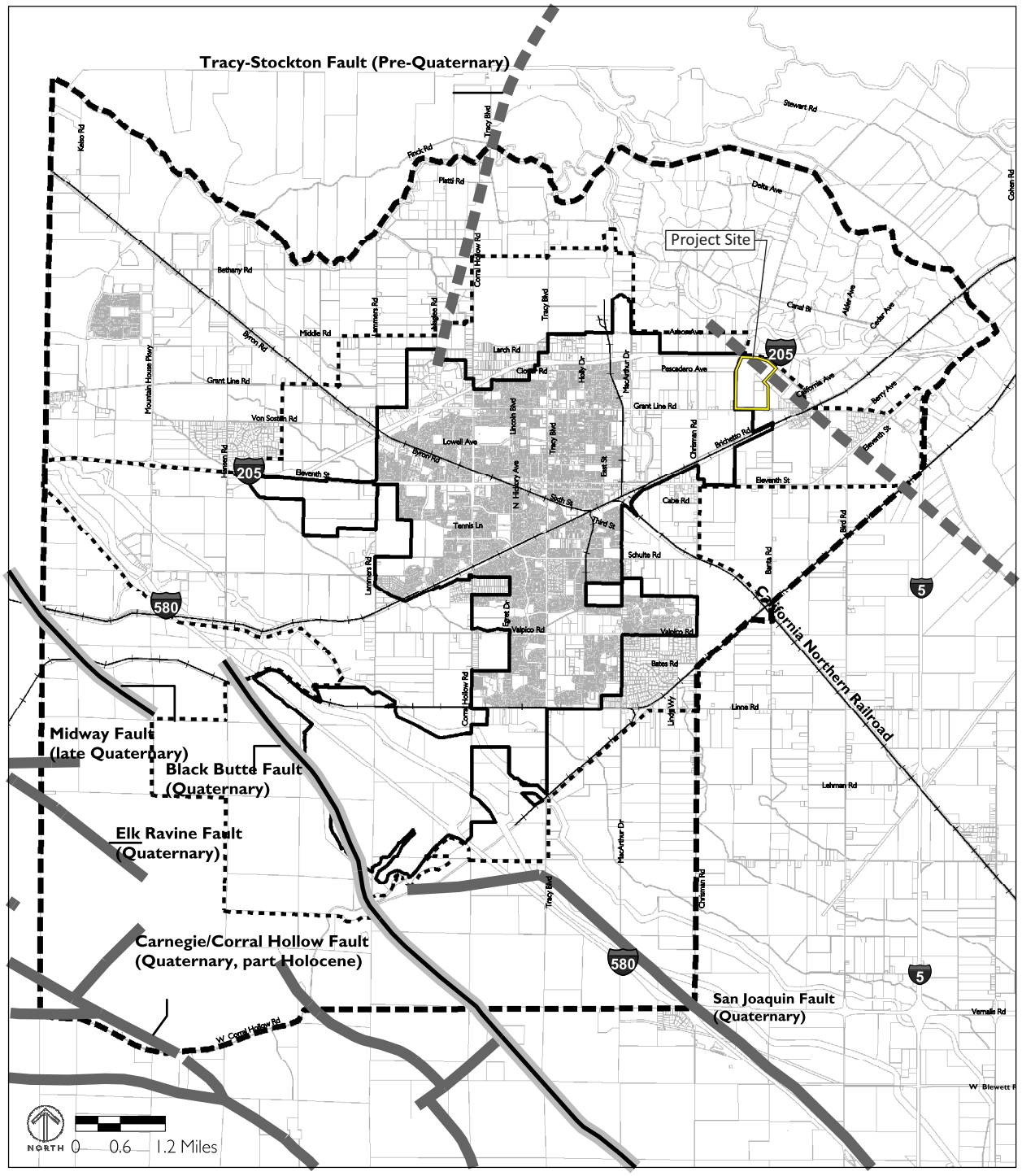
Paleontological Resources and Unique Geologic Feature

The geographic scope of the cumulative unique geologic resources and paleontological resources analysis is the project site and its immediate vicinity. This is because geologic resources and paleontological resource impacts tend to be localized since the integrity of any given resource depends on what occurs only in the immediate vicinity around that resource, such as disruption of soils.

Construction activities associated with development of cumulative projects in within the vicinity of the project site may have the potential to encounter undiscovered geologic resources and paleontological resources. These cumulative projects would be required to mitigate for impacts through compliance with applicable federal and State laws governing geologic resources and paleontological resources and other applicable mitigation measures. Moreover, the likelihood that geologic resources and paleontological resources are present on the cumulative project areas is relatively low, given that the majority of soil disturbance associated with these cumulative projects would take place within Holocene soils too young to be fossiliferous. Although there is the possibility that previously undiscovered resources could be encountered by subsurface earthwork activities, the implementation of standard construction mitigation measures and General Plan Objective CC-3.1 and Policy 5, would ensure that undiscovered geologic and paleontological resources are not adversely affected by cumulative project-related construction activities, which would prevent the destruction or degradation of potentially significant cultural resources in the vicinity of the project site. Therefore, potential cumulative impacts are less than significant. Additionally, as discussed above, the proposed project would not have a significant impact in this regard, with incorporation of the identified mitigation. Given the low potential for disruption and the comprehensiveness of mitigation measures that would apply to the cumulative projects in the vicinity, the proposed project, in conjunction with other cumulative projects, would not result in a cumulatively considerable contribution to a cumulative impact related to unique geologic and paleontological resources.

Level of Cumulative Significance

Less Than Significant Impact With Mitigation



Data Sources:
Fault locations: "GIS Data for the Geologic Map of California," California Dept. of Conservation, Division of Mines and Geology (2000); and "Recent Earthquake Activity, California-Nevada," U.S. Geological Survey (http://quake.usgs.gov/recenteqs/latest.htm; accessed 7/6/05).
Fault Names: "Final Environmental Impact Report for the City of Tracy Urban Management Plan" (1993).

Source: City of Tracy

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Exhibit 3.7-1
Regional Earthquake Fault Map

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3.8 - Greenhouse Gas Emissions

3.8.1 - Introduction

This section describes the existing greenhouse gas (GHG) emissions setting as well as the relevant regulatory framework. This section also evaluates the potential impacts related to GHG emissions that could result from implementation of the project. Information in this section is based, in part, on project-specific GHG emissions modeling outputs included in Appendix B.

3.8.2 - Environmental Setting

Global Climate Change

Climate change is a change in the average weather of the Earth that is measured by alterations in wind patterns, storms, precipitation, and temperature. These changes are assessed using historical records of temperature changes occurring in the past, such as during previous ice ages. Many of the concerns regarding climate change use this data to extrapolate a level of statistical significance specifically focusing on temperature records from the last 150 years (the Industrial Age) that differ from previous climate changes in rate and magnitude.

The United Nations Intergovernmental Panel on Climate Change (IPCC) constructed several emission trajectories of GHGs needed to stabilize global temperatures and climate change impacts. In its Fourth Assessment Report, the IPCC predicted that the global mean temperature changes from 1990 to 2100, given six scenarios, could range from 1.1°C (degrees Celsius) to 6.4°C. Regardless of analytical methodology, global average temperatures and sea levels are expected to rise under all scenarios.[1] The report also concluded that "[w]arming of the climate system is unequivocal," and that "[m]ost of the observed increase in global average temperatures since the mid-20th century is very likely due to the observed increase in anthropogenic greenhouse gas concentrations."

An individual project cannot generate enough GHG emissions to effect a discernible change in global climate. However, each individual project participates in the potential for global climate change by its incremental contribution of GHGs combined with the cumulative increase of all other sources of GHGs, which when taken together constitute potential influences on global climate change.

Greenhouse Gases

Gases that trap heat in the atmosphere are referred to as GHGs. The effect is analogous to the way a greenhouse retains heat. Common GHGs include water vapor, carbon dioxide (CO_2), methane (CH_4), oxides of nitrogen (NO_x), chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride (SF_6), ozone, and aerosols. Natural processes and human activities emit GHGs. The presence of GHGs in the atmosphere affects the earth's temperature. It is believed that emissions from human activities, such as electricity production and vehicle use, have elevated the

[1] Intergovernmental Panel on Climate Change (IPCC). 2007. Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change [Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M. Tignor and H.L. Miller (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA. Website: www.ipcc.ch/publications_and_data/ar4/wg1/en/contents.html.

concentration of these gases in the atmosphere beyond the level of naturally occurring concentrations.

Climate change is driven by forcings and feedbacks. Radiative forcing is the difference between the incoming energy and outgoing energy in the climate system. Positive forcing tends to warm the surface while negative forcing tends to cool it. Radiative forcing values are typically expressed in watts per square meter. A feedback is a climate process that can strengthen or weaken a forcing. For example, when ice or snow melts, it reveals darker land underneath which absorbs more radiation and causes more warming. The global warming potential is the potential of a gas or aerosol to trap heat in the atmosphere. The global warming potential of a gas is essentially a measurement of the radiative forcing of a GHG compared with the reference gas, CO_2.

Individual GHG compounds have varying global warming potential and atmospheric lifetimes. CO_2, the reference gas for global warming potential, has a global warming potential of one. The global warming potential of a GHG is a measure of how much a given mass of a GHG is estimated to contribute to global warming. To describe how much global warming a given type and amount of GHG may cause, the carbon dioxide equivalent (CO_2e) is used. The calculation of CO_2e is a consistent methodology for comparing GHG emissions since it normalizes various GHG emissions to a consistent reference gas, CO_2. For example, CH_4's warming potential of 21 indicates that CH_4 has 21 times greater warming effect than CO_2 on a molecule-per-molecule basis. CO_2e is the mass emissions of an individual GHG multiplied by its global warming potential. GHGs defined by Assembly Bill (AB) 32 (see the Climate Change Regulatory Environment section for a description) include CO_2, CH_4, NO_x, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. They are described in Table 3.8-1: Description of Greenhouse Gases. A seventh GHG, nitrogen trifluoride (NF_3), was added to Health and Safety Code Section 38505(g)(7) as a GHG of concern.

Table 3.8-1: Description of Greenhouse Gases

Greenhouse Gas	Description and Physical Properties	Sources
Nitrous oxide	Nitrous oxide (laughing gas) is a colorless GHG. It has a lifetime of 114 years. Its global warming potential is 310.	Microbial processes in soil and water, fuel combustion, and industrial processes.
Methane	Methane is a flammable gas and is the main component of natural gas. It has a lifetime of 12 years. Its global warming potential is 21.	Methane is extracted from geological deposits (natural gas fields). Other sources are landfills, fermentation of manure, and decay of organic matter.
Carbon dioxide	Carbon dioxide (CO_2) is an odorless, colorless, natural GHG. Carbon dioxide's global warming potential is 1. The concentration in 2005 was 379 parts per million (ppm), which is an increase of about 1.4 ppm per year since 1960.	Natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources are from burning coal, oil, natural gas, and wood.

Greenhouse Gas	Description and Physical Properties	Sources
Chlorofluorocarbons	These are gases formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms. They are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). Global warming potentials range from 3,800 to 8,100.	Chlorofluorocarbons were synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. They destroy stratospheric ozone. The Montreal Protocol on Substances that Deplete the Ozone Layer prohibited their production in 1987.
Hydrofluorocarbons	Hydrofluorocarbons are a group of GHGs containing carbon, chlorine, and at least one hydrogen atom. Global warming potentials range from 140 to 11,700.	Hydrofluorocarbons are synthetic manmade chemicals used as a substitute for chlorofluorocarbons in applications such as automobile air conditioners and refrigerants.
Perfluorocarbons	Perfluorocarbons have stable molecular structures and only break down by ultraviolet rays about 60 kilometers above Earth's surface. Because of this, they have long lifetimes, between 10,000 and 50,000 years. Global warming potentials range from 6,500 to 9,200.	Two main sources of perfluorocarbons are primary aluminum production and semiconductor manufacturing.
Sulfur hexafluoride	Sulfur hexafluoride (SF_6) is an inorganic, odorless, colorless, and nontoxic, nonflammable gas. It has a lifetime of 3,200 years. It has a high global warming potential, 23,900.	This gas is manmade and used for insulation in electric power transmission equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas.
Nitrogen trifluoride	Nitrogen trifluoride (NF_3) was added to Health and Safety Code Section 38505(g)(7) as a GHG of concern. It has a high global warming potential of 17,200.	This gas is used in electronics manufacture for semiconductors and liquid crystal displays.
Sources: Intergovernmental Panel on Climate Change (IPCC). 2007. Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change [Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M. Tignor and H.L. Miller (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA. Website: www.ipcc.ch/publications_and_data/ar4/wg1/en/contents.html. Accessed February 14, 2021. Intergovernmental Panel on Climate Change (IPCC). 2007b. Climate Change 2007: Synthesis Report. Contribution of Working Groups I, II and III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (Core Writing Team, Pachauri, R.K. and Reisinger, A. [eds.]). IPCC, Geneva, Switzerland. Website: www.ipcc.ch/publications_and_data/ar4/syr/en/contents.html. Accessed February 14, 2021.		

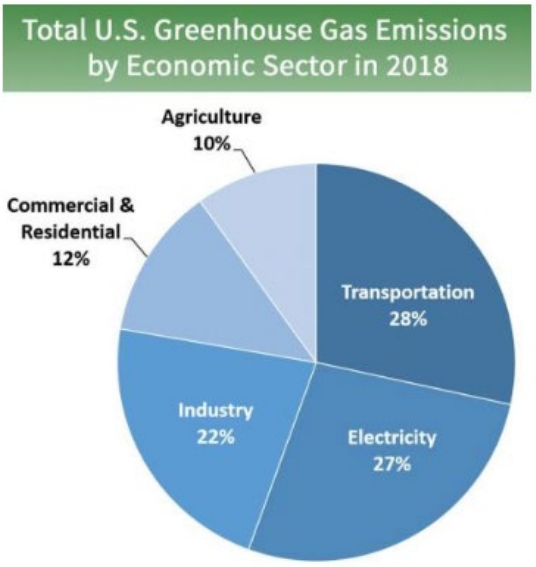
The State of California has begun the process of addressing pollutants referred to as short-lived climate pollutants. The short-lived climate pollutants include three main components: black carbon, fluorinated gases, and methane. The California Air Resources Board (ARB) approved the Short-Lived Climate Pollutant Reduction Strategy in March 2017. The ARB has completed an emission inventory of these pollutants, identified research needs, identified existing and potential new control measures that offer co-benefits, and coordinated with other State agencies and districts to develop measures.

Sources of black carbon are already regulated by the ARB, and air district criteria pollutant and toxic regulations that control fine particulate emissions from diesel engines and other combustion sources.[2] Additional controls on the sources of black carbon specifically for their GHG impacts beyond those required for toxic and fine particulates are not likely to be needed.

Greenhouse Gas Emissions Inventories

United States GHG Inventory

In 2018, total United States GHG emissions totaled 6,677 million metric tons (MMT) CO_2e. Figure 3.8-1 presents 2018 United States GHG emissions by economic sector. Emissions increased from 2017 to 2018 by approximately three (3) percent. This increase was largely driven by an increase in emissions from fossil fuel combustion, which was a result of multiple factors, including more electricity use due to greater heating and cooling needs due to a colder winter and hotter summer in 2018 in comparison to 2017. Total GHG emissions in the United States increased by 3.7 percent from 1990 to 2018 (from 6,437 MMT CO_2e in 1990 to 6,677 MMT CO_2e in 2018). Since 1990, United States emissions have increased at an average annual rate of 0.1 percent. GHG emissions in 2018 were 10.2 percent below 2005 levels.[3]



Note: Emissions shown do not include carbon sinks such as change in land uses and forestry.

Source: United States Environmental Protection Agency (EPA). 2020. Inventory of U.S. Greenhouse Gas Emissions and Sinks. April. Website: https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks. Accessed June 24, 2020.

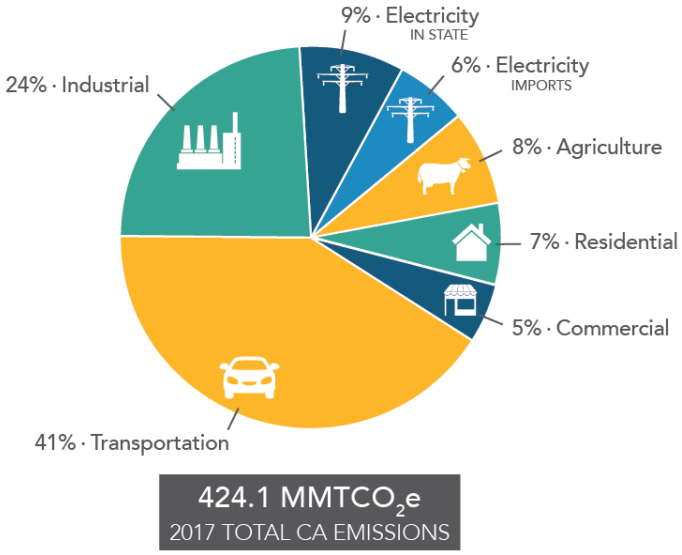
Figure 3.8-1: 2018 United States Greenhouse Gas Emissions by Economic Sector

[2] California Air Resources Board (ARB). 2015. Short-Lived Climate Pollutant Reduction Strategy, Concept Paper. May. Website: http://www.arb.ca.gov/cc/shortlived/concept_paper.pdf. Accessed January 21, 2021.

[3] United States Environmental Protection Agency (EPA). 2020. Inventory of U.S. Greenhouse Gas Emissions and Sinks. April. Website: https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks. Accessed June 24, 2020.

California GHG Inventory

California contributes a large quantity of GHG emissions to the atmosphere. In 2017, emissions from GHG emitting activities Statewide were 424.1 MMT CO_2e, 5 MMT CO_2e lower than 2016 levels and 7 MMT CO_2e below the 2020 GHG Limit of 431 MMT CO_2e. Emissions of CO_2 are byproducts of fossil fuel combustion and are attributable in large part to human activities associated with transportation, industry, electricity and natural gas consumption, and agriculture. In California, the transportation sector is the largest emitter at 41 percent of GHG emissions, followed by industry at 24 percent of GHG emissions (Figure 3.8-2).[4]



Source: California Air Resources Board (ARB). 2019. California Greenhouse Gas Emission Inventory – 2019 Edition. August 12. Website: https://www.arb.ca.gov/cc/inventory/data/data.htm. Accessed June 24, 2020.

Figure 3.8-2: California Greenhouse Gas Emissions by Sector

Environmental Effects of Climate Change in California

In California, climate change may result in consequences such as the following.[5,6]

- **A reduction in the quality and supply of water from the Sierra snowpack.** If heat-trapping emissions continue unabated, more precipitation will fall as rain instead of snow, and the snow that does fall will melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70 to 90 percent. This can lead to challenges in securing adequate water supplies. It can also lead to a potential reduction in hydropower.

[4] California Air Resources Board (ARB). 2019. California Greenhouse Gas Emissions for 2000 to 2017. Website: https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2016/ghg_inventory_trends_00-16.pdf. Accessed June 24, 2020.

[5] California Climate Change Center (CCCC). 2006. Our Changing Climate, Assessing the Risks to California: A Summary Report from the California Climate Change Center. July 2006. CEC-500-2006-077. Website: www.scc.ca.gov/webmaster/ftp/pdf/climate_change/assessing _risks.pdf. Accessed January 21, 2021.

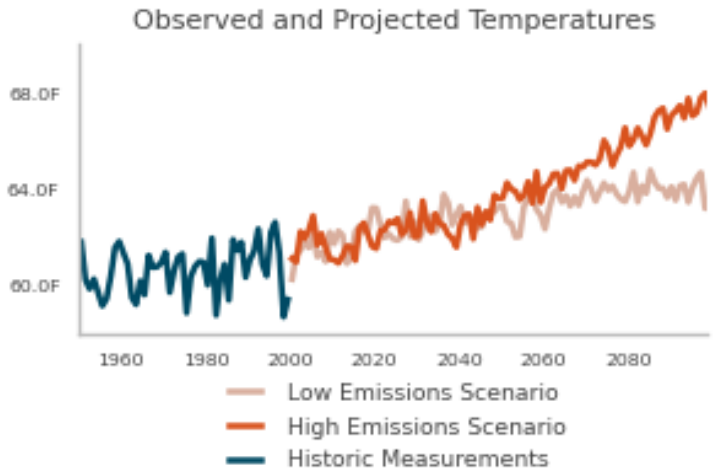
[6] Moser et al. 2009. Moser, Susie, Guido Franco, Sarah Pittiglio, Wendy Chou, Dan Cayan. 2009. The Future Is Now: An Update on Climate Change Science Impacts and Response Options for California. California Energy Commission, PIER Energy-Related Environmental Research Program. CEC-500-2008-071. Website: www.energy.ca.gov/2008publications/CEC-500-2008-071/CEC-500-2008-071.PDF. Accessed January 21, 2021.

- **Increased risk of large wildfires.** If rain increases as temperatures rise, wildfires in the grasslands and chaparral ecosystems of Southern California are estimated to increase by approximately 30 percent toward the end of the 21st century because more winter rain will stimulate the growth of more plant "fuel" available to burn in the fall. In contrast, a hotter, drier climate could promote up to 90 percent more Northern California fires by the end of the century by drying out and increasing the flammability of forest vegetation.
- **Reductions in the quality and quantity of certain agricultural products.** The crops and products likely to be adversely affected include wine grapes, fruit, nuts, and milk.
- **Exacerbation of air quality problems.** If temperatures rise to the medium warming range, there could be 75 to 85 percent more days with weather conducive to ozone formation in Los Angeles and the San Joaquin Valley, relative to today's conditions. This is more than twice the increase expected if rising temperatures remain in the lower warming range. This increase in air quality problems could result in an increase in asthma and other health-related problems.
- **A rise in sea levels resulting in the displacement of coastal businesses and residences.** During the past century, sea levels along California's coast have risen about seven inches. If emissions continue unabated and temperatures rise into the higher anticipated warming range, sea level is expected to rise an additional 22 to 35 inches by the end of the century. Elevations of this magnitude would inundate coastal areas with salt water, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats.
- **An increase in temperature and extreme weather events.** Climate change is expected to lead to increases in the frequency, intensity, and duration of extreme heat events and heat waves in California. More heat waves can exacerbate chronic disease or heat-related illness.
- **A decrease in the health and productivity of California's forests.** Climate change can cause an increase in wildfires, an enhanced insect population, and establishment of non-native species.

Consequences of Climate Change in the Tracy Area

Figure 3.8-3 displays a chart of measured historical and projected annual average temperatures in the Tracy area. As shown in the figure, temperatures are expected to rise in the low and high GHG emissions scenarios. The results indicate that temperatures are predicted to increase by 3.4°F (degrees Fahrenheit) under the low emission scenario and 5.9°F under the high emissions scenario.[7]

[7] Cal-Adapt. 2021. Local Climate Snapshots. Website: http://v1.cal-adapt.org/tools/factsheet/#. Accessed January 28, 2021.



Source: Cal-Adapt. 2021. Local Climate Snapshots. Website: http://v1.cal-adapt.org/tools/factsheet/#. Accessed January 28, 2021.

Figure 3.8-3: Observed and Projected Temperatures for Climate Change in the City of Tracy Area

Human Health Effects of GHG Emissions

GHG emissions from development projects would not result in concentrations that would directly impact public health. However, the cumulative effects of GHG emissions on climate change have the potential to cause adverse effects to human health.

The United States Global Change Research Program, in its report, Global Climate Change Impacts in the United States (2009),[8] has analyzed the degree to which impacts on human health are expected to impact the United States.

Potential effects of climate change on public health include:

- **Direct Temperature Effects:** Climate change may directly affect human health through increases in average temperatures, which are predicted to increase the incidence of heat waves and hot extremes.
- **Extreme Events:** Climate change may affect the frequency and severity of extreme weather events, such as hurricanes and extreme heat and floods, which can be destructive to human health and well-being.
- **Climate-Sensitive Diseases:** Climate change may increase the risk of some infectious diseases, particularly those diseases that appear in warm areas and are spread by mosquitoes and other insects, such as malaria, dengue fever, yellow fever, and encephalitis.
- **Air Quality:** Respiratory disorders may be exacerbated by warming-induced increases in the frequency of smog (ground-level ozone) events and particulate air pollution.[9]

[8] The United States Global Change Research Program. Global Climate Change Impacts in the United States. 2009. Website: https://downloads.globalchange.gov/usimpacts/pdfs/climate-impacts-report.pdf. Accessed January 21, 2021.
[9] Ibid.

Although there could be health effects resulting from changes in the climate and the consequences that can occur, inhalation of GHGs at levels currently in the atmosphere would not result in adverse health effects, with the exception of ozone and aerosols (particulate matter). At very high indoor concentrations (not at levels existing outside), CO, CH_4, sulfur hexafluoride, and some chlorofluorocarbons can cause suffocation as the gases can displace oxygen.[10,11]

3.8.3 - Regulatory Framework

International Regulations

International organizations such as the ones discussed below have made substantial efforts to reduce GHGs. Preventing human-induced climate change will require the participation of all nations in solutions to address the issue.

Intergovernmental Panel on Climate Change. In 1988, the United Nations and the World Meteorological Organization established the IPCC to assess the scientific, technical and socio-economic information relevant to understanding the scientific basis of risk of human-induced climate change, its potential impacts, and options for adaptation and mitigation.

United Nations Framework Convention on Climate Change (Convention). On March 21, 1994, the United States joined a number of countries around the world in signing the Convention. Under the Convention, governments gather and share information on GHG emissions, national policies, and best practices; launch national strategies for addressing GHG emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of climate change.

Kyoto Protocol. The Kyoto Protocol is an international agreement linked to the United Nations Framework Convention on Climate Change. The major feature of the Kyoto Protocol is that it sets binding targets for 37 industrialized countries and the European community for reducing GHG emissions at average of 5 percent against 1990 levels over the five-year period from 2008–2012. The Convention (as discussed above) encouraged industrialized countries to stabilize emissions; however, the Protocol commits them to do so. Developed countries have contributed more emissions over the last 150 years; therefore, the Protocol places a heavier burden on developed nations under the principle of "common but differentiated responsibilities."

In 2001, President George W. Bush indicated that he would not submit the treaty to the U.S. Senate for ratification, which effectively ended American involvement in the Kyoto Protocol. In December 2009, international leaders met in Copenhagen to address the future of international climate change commitments post-Kyoto. No binding agreement was reached in Copenhagen; however, the Committee identified the long-term goal of limiting the maximum global average temperature increase to no more than 2°C above preindustrial levels, subject to a review in 2015. The UN Climate Change Committee held additional meetings in Durban, South Africa in November 2011; Doha, Qatar

[10] Centers for Disease Control and Prevention (CDC). 2010. Department of Health and Human Services, the National Institute for Occupational Safety and Health. Carbon Dioxide. Website: www.cdc.gov/niosh/npg/npgd0103.html. Accessed February 14, 2017.

[11] Occupational Safety and Health Administration (OSHA). 2003. United States Department of Labor. Safety and Health Topics: Methane. Website: www.osha.gov/dts/chemicalsampling/data/CH_250700.html. Accessed January 21, 2021.

in November 2012; and Warsaw, Poland in November 2013. The meetings are gradually gaining consensus among participants on individual climate change issues.

Paris Climate Change Agreement. On September 23, 2014, more than 100 heads of state and government, and leaders from the private sector and civil society met at the Climate Summit in New York hosted by the United Nations. At the Summit, heads of government, business and civil society announced actions in areas that would have the greatest impact on reducing emissions, including climate finance, energy, transport, industry, agriculture, cities, forests, and building resilience.

Parties to the U.N. Framework Convention on Climate Change (UNFCCC) reached a landmark agreement on December 12 in Paris, charting a fundamentally new course in the two-decade-old global climate effort. Culminating a four-year negotiating round, the new treaty ends the strict differentiation between developed and developing countries that characterized earlier efforts, replacing it with a common framework that commits all countries to put forward their best efforts and to strengthen them in the years ahead. This includes, for the first time, requirements that all parties report regularly on their emissions and implementation efforts, and undergo international review.

The agreement and a companion decision by parties were the key outcomes of the conference, known as the 21st Session of the UNFCCC Conference of the Parties, or COP 21.[12] Together, the Paris Agreement and the accompanying COP decision:

- Reaffirm the goal of limiting global temperature increase well below 2 degrees Celsius, while urging efforts to limit the increase to 1.5 degrees;
- Establish binding commitments by all parties to make "nationally determined contributions" (NDCs), and to pursue domestic measures aimed at achieving them;
- Commit all countries to report regularly on their emissions and "progress made in implementing and achieving" their NDCs, and to undergo international review;
- Commit all countries to submit new NDCs every five years, with the clear expectation that they will "represent a progression" beyond previous ones;
- Reaffirm the binding obligations of developed countries under the UNFCCC to support the efforts of developing countries, while for the first time encouraging voluntary contributions by developing countries, too;
- Extend the current goal of mobilizing $100 billion a year in support by 2020 through 2025, with a new, higher goal to be set for the period after 2025;
- Extend a mechanism to address "loss and damage" resulting from climate change, which explicitly will not "involve or provide a basis for any liability or compensation;"
- Require parties engaging in international emissions trading to avoid "double counting;" and

[12] Center for Climate and Energy Solutions (C2ES). 2015. Outcomes of the U.N. Climate Change Conference. Website: http://www.c2es.org/international/negotiations/cop21-paris/summary. Accessed January 21, 2021.

- Call for a new mechanism, similar to the Clean Development Mechanism under the Kyoto Protocol, enabling emission reductions in one country to be counted toward another country's NDC (C2ES 2015a).

On June 1, 2017, President Trump announced the decision for the United States to withdraw from the Paris Climate Accord;[13] California remains committed to combating climate change through programs aimed to reduce GHGs.[14] On January 20, 2021, President Biden signed an Executive Order for the United States to rejoin the Paris Climate Accord, which became effective at the completion of a mandatory 30-day notice period.

Federal Regulations

The following are actions taken at the federal level relating to GHG emissions.

Greenhouse Gas Endangerment. *Massachusetts v. EPA* (Supreme Court Case 05-1120) was argued before the United States Supreme Court on November 29, 2006, in which the United States Environmental Protection Agency (EPA) sought to regulate four GHGs, including carbon dioxide, under Section 202(a)(1) of the Clean Air Act. A decision was made on April 2, 2007, in which the Supreme Court found that GHGs are air pollutants covered by the Clean Air Act. The Court held that the Administrator must determine whether emissions of GHGs from new motor vehicles cause or contribute to air pollution, which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. On December 7, 2009, the EPA Administrator signed two distinct findings regarding GHGs under Section 202(a) of the Clean Air Act:

- **Endangerment Finding:** The Administrator finds that the current and projected concentrations of the six key well-mixed GHG emissions—carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride—in the atmosphere threaten the public health and welfare of current and future generations.
- **Cause or Contribute Finding:** The Administrator finds that the combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to the greenhouse gas pollution, which threatens public health and welfare.

These findings do not impose requirements on industry generally or specific entities. However, this was a prerequisite for implementing GHG emissions standards for vehicles, as discussed in the section "Clean Vehicles" below. After a lengthy legal challenge, the United States Supreme Court declined to review an Appeals Court ruling upholding that upheld the EPA Administrator findings.

Clean Vehicles. Congress first passed the Corporate Average Fuel Economy law in 1975 to increase the fuel economy of cars and light duty trucks. The law has become more stringent over time. On May 19, 2009, President Obama put in motion a new national policy to increase fuel economy for all

[13] The White House. Statement by President Trump on the Paris Climate Accord. Website: https://www.whitehouse.gov/the-press-office/2017/06/01/statement-president-trump-paris-climate-accord. Accessed January 21, 2021.

[14] California Air Resources Board (ARB). 2017. New Release: California and China Team Up to Push for Millions More Zero-emission Vehicles. Website: https://www.arb.ca.gov/newsreel/newsrelease.php?id=934. Accessed January 21, 2021.

new cars and trucks sold in the United States. On April 1, 2010, the EPA and the Department of Transportation's National Highway Safety Administration announced a joint final rule establishing a national program that would reduce GHG emissions and improve fuel economy for new cars and trucks sold in the United States.

The first phase of the national program applies to passenger cars, light duty trucks, and medium duty passenger vehicles, covering model years 2012 through 2016. They require these vehicles to meet an estimated combined average emissions level of 250 grams of CO_2 per mile, equivalent to 35.5 miles per gallon if the automobile industry were to meet this CO_2 level solely through fuel economy improvements. Together, these standards would cut CO_2 emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012–2016). The EPA and the National Highway Safety Administration issued final rules on a second phase joint rulemaking, establishing national standards for light duty vehicles for model years 2017 through 2025 in August 2012.[15] The new standards for model years 2017 through 2025 apply to passenger cars, light duty trucks, and medium duty passenger vehicles. The final standards are projected to result in an average industry fleetwide level of 163 grams/mile of CO_2 in model year 2025, which is equivalent to 54.5 miles per gallon (mpg) if achieved exclusively through fuel economy improvements.

The EPA and the U.S. Department of Transportation issued final rules for the first national standards to reduce GHG emissions and improve fuel efficiency of heavy-duty trucks and buses on September 15, 2011, which became effective November 14, 2011. For combination tractors, the agencies are proposing engine and vehicle standards that began in the 2014 model year and achieve up to a 20 percent reduction in CO_2 emissions and fuel consumption by the 2018 model year. For heavy-duty pickup trucks and vans, the agencies are proposing separate gasoline and diesel truck standards, which phase in starting in the 2014 model year and achieve up to a 10 percent reduction for gasoline vehicles, and a 15 percent reduction for diesel vehicles by 2018 model year (12 and 17 percent respectively if accounting for air conditioning leakage). Finally, for vocational vehicles, the engine and vehicle standards would achieve up to a 10 percent reduction in fuel consumption and CO_2 emissions from the 2014 to 2018 model years.

Mandatory Reporting of Greenhouse Gases. The Consolidated Appropriations Act of 2008, passed in December 2007, requires the establishment of mandatory GHG reporting requirements. On September 22, 2009, the EPA issued the Final Mandatory Reporting of Greenhouse Gases Rule, which became effective January 1, 2010. The rule requires reporting of GHG emissions from large sources and suppliers in the United States and is intended to collect accurate and timely emissions data to inform future policy decisions. Under the rule, suppliers of fossil fuels or industrial GHGs, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons or more per year of GHG emissions are required to submit annual reports to the EPA.

New Source Review. The EPA issued a final rule on May 13, 2010, that establishes thresholds for GHGs that define when permits under the New Source Review Prevention of Significant

[15] United States Environmental Protection Agency (EPA). 2012. EPA and NHTSA Set Standards to Reduce Greenhouse Gases and Improve Fuel Economy for Model Years 2017-2025 Cars and Light Trucks. Website: http://www.epa.gov/otaq/climate/documents/420f12051.pdf. Accessed January 21, 2021.

Deterioration and Title V Operating Permit programs are required for new and existing industrial facilities. This final rule "tailors" the requirements of these Clean Air Act permitting programs to limit which facilities will be required to obtain Prevention of Significant Deterioration and Title V permits. In the preamble to the revisions to the Federal Code of Regulations, the EPA states:

> This rulemaking is necessary because without it the Prevention of Significant Deterioration and Title V requirements would apply, as of January 2, 2011, at the 100 or 250 tons per year levels provided under the Clean Air Act, greatly increasing the number of required permits, imposing undue costs on small sources, overwhelming the resources of permitting authorities, and severely impairing the functioning of the programs. EPA is relieving these resource burdens by phasing in the applicability of these programs to greenhouse gas sources, starting with the largest greenhouse gas emitters. This rule establishes two initial steps of the phase-in. The rule also commits the agency to take certain actions on future steps addressing smaller sources, but excludes certain smaller sources from Prevention of Significant Deterioration and Title V permitting for greenhouse gas emissions until at least April 30, 2016.

The EPA estimates that facilities responsible for nearly 70 percent of the national GHG emissions from stationary sources will be subject to permitting requirements under this rule. This includes the nation's largest GHG emitters—power plants, refineries, and cement production facilities.

Standards of Performance for Greenhouse Gas Emissions for New Stationary Sources: Electric Utility Generating Units. As required by a settlement agreement, the EPA proposed new performance standards for emissions of carbon dioxide for new, affected, fossil fuel-fired electric utility generating units on March 27, 2012. New sources greater than 25 megawatts would be required to meet an output-based standard of 1,000 pounds of carbon dioxide per megawatt-hour, based on the performance of widely used natural gas combined cycle technology.

Cap and Trade. Cap and trade refers to a policy tool where emissions are limited to a certain amount and can be traded, or provides flexibility on how the emitter can comply. There is no federal GHG cap-and-trade program currently; however, some states have joined to create initiatives to provide a mechanism for cap and trade.

The Regional Greenhouse Gas Initiative is an effort to reduce GHGs among the states of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont. Each state caps carbon dioxide emissions from power plants, auctions carbon dioxide emission allowances, and invests the proceeds in strategic energy programs that further reduce emissions, save consumers money, create jobs, and build a clean energy economy. The Initiative began in 2008.

The Western Climate Initiative partner jurisdictions have developed a comprehensive initiative to reduce regional GHG emissions to 15 percent below 2005 levels by 2020. The partners are California,

British Columbia, Manitoba, Ontario, and Québec. Currently only California and Québec are participating in the cap-and-trade program.[16]

State Regulations

The laws and regulations enacted at the State level that indirectly reduce GHGs are listed below.

Legislative Actions to Reduce GHGs

The State of California legislature has enacted a series of bills that constitute the most aggressive program to reduce GHGs of any state in the nation. Some legislation such as the landmark AB 32 California Global Warming Solutions Act of 2006 was specifically enacted to address GHG emissions. Other legislation such as Title 24 and Title 20 energy standards were originally adopted for other purposes such as energy and water conservation, but also provide GHG reductions. This section describes the major provisions of these legislative efforts.

Assembly Bill 32. The California State Legislature enacted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires that GHGs emitted in California be reduced to 1990 levels by the year 2020. "Greenhouse gases" as defined under AB 32 include CO_2, CH_4, N_2O, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Since AB 32 was enacted, a seventh chemical, nitrogen trifluoride, has also been added to the list of GHGs.

The ARB is the State agency charged with monitoring and regulating sources of GHGs. The ARB approved the 1990 GHG emissions level of 427 MMT CO_2e on December 6, 2007.[17] Therefore, to meet the State's target, emissions generated in California in 2020 were required to be equal to or less than 427 MMT CO_2e. Emissions in 2020 in a business-as-usual (BAU) scenario were estimated to be 596 MMT CO_2e, which do not account for reductions from AB 32 regulations.[18] At that rate, a 28 percent reduction was required to achieve the 427 MMT CO_2e 1990 inventory. In October 2010, the ARB prepared an updated 2020 forecast to account for the effects of the 2008 recession and slower forecasted growth. Under the updated forecast, a 21.7 percent reduction from BAU was required to achieve 1990 levels.[19]

California Air Resources Board Scoping Plan. The ARB Climate Change Scoping Plan (Scoping Plan) contains measures designed to reduce the State's emissions to 1990 levels by the year 2020 to comply with AB 32.[20] The Scoping Plan identifies recommended measures for multiple GHG emission sectors and the associated emission reductions needed to achieve the year 2020 emissions target—each sector has a different emission reduction target. Most of the measures target the transportation and

[16] Center for Climate and Energy Solutions (C2ES). 2015. Multi-State Climate Initiatives. Website: http://www.c2es.org/us-states-regions/regional-climate-initiatives. Accessed January 21, 2021.

[17] California Air Resources Board (ARB). 2007. Staff Report. California 1990 Greenhouse Gas Level and 2020 Emissions Limit. November 16, 2007. Website: www.arb.ca.gov/cc/inventory/pubs/reports/staff_report_1990_level.pdf. Accessed January 21, 2021.

[18] California Air Resources Board (ARB). 2008. (includes edits made in 2009) Climate Change Scoping Plan, a framework for change. Website: http://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf. Accessed January 21, 2021.

[19] California Air Resources Board (ARB). 2010. 2020 Greenhouse Gas Emissions Projection and BAU Scenario Emissions Estimate. Website: http://www.arb.ca.gov/cc/inventory/archive/captrade_2010_projection.pdf. Accessed January 21, 2021.

[20] California Air Resources Board (ARB). 2008. (includes edits made in 2009) Climate Change Scoping Plan, a framework for change. Website: http://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf. Accessed January 21, 2021.

electricity sectors. As stated in the Scoping Plan, the key elements of the strategy for achieving the 2020 GHG target include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards;
- Achieving a Statewide renewables energy mix of 33 percent;
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system;
- Establishing targets for transportation-related GHG emissions for regions throughout California and pursuing policies and incentives to achieve those targets;
- Adopting and implementing measures pursuant to existing State laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard (LCFS); and
- Creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the State's long-term commitment to AB 32 implementation.

In addition, the Scoping Plan differentiates between "capped" and "uncapped" strategies. Capped strategies are subject to the proposed cap-and-trade program. Implementation of the capped strategies was calculated to achieve a sufficient amount of reductions by 2020 to achieve the emission target contained in AB 32. Uncapped strategies that will not be subject to the cap-and-trade emissions caps and requirements are provided as a margin of safety by accounting for additional GHG emission reductions.[21]

The ARB approved the First Update to the Scoping Plan in May of 2014 and the 2017 Scoping Plan Update in November of 2017. The First Update built upon the Initial Scoping Plan while the 2017 Scoping Plan Update builds upon the First Update to the Scoping Plan with new strategies and recommendations.[22]

Senate Bill 32. The Governor signed Senate Bill (SB) 32 in September of 2016, giving the ARB statutory responsibility to include the 2030 target previously contained in Executive Order B-30-15 in the 2017 Scoping Plan Update. SB 32 states, "In adopting rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emissions reductions authorized by this division, the State [Air Resources] Board shall ensure that Statewide GHG emissions are reduced to at least 40 percent below the Statewide GHG emissions limit no later than December 31, 2030." The 2017 Climate Change Scoping Plan Update addressing the SB 32 targets was adopted on December 14, 2017. The major elements of the framework proposed to achieve the 2030 target are as follows:

[21] California Air Resources Board (ARB). 2008 (includes edits made in 2009). Climate Change Scoping Plan, a framework for change. Website: http://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf. Accessed January 21, 2021.

[22] California Air Resources Board (ARB). 2014. First Update to the Climate Change Scoping Plan. Website: http://www.arb.ca.gov/cc/scopingplan/document/updatedscopingplan2013.htm. Accessed January 21, 2021.

1. SB 350
   - Achieve 50 percent Renewables Portfolio Standard by 2030.
   - Doubling of energy efficiency savings by 2030.
2. Low Carbon Fuel Standard
   - Increased stringency (reducing carbon intensity 18 percent by 2030, up from 10 percent in 2020).
3. Mobile Source Strategy (Cleaner Technology and Fuels Scenario)
   - Maintaining existing GHG standards for light- and heavy-duty vehicles.
   - Put 4.2 million Zero-Emission Vehicles (ZEVs) on the roads.
   - Increase ZEV buses, delivery and other trucks.
4. Sustainable Freight Action Plan
   - Improve freight system efficiency.
   - Maximize use of near Zero-Emission Vehicles and equipment powered by renewable energy.
   - Deploy over 100,000 zero-emission trucks and equipment by 2030.
5. Short-Lived Climate Pollutant Reduction Strategy
   - Reduce emissions of methane and hydrofluorocarbons 40 percent below 2013 levels by 2030.
   - Reduce emissions of black carbon 50 percent below 2013 levels by 2030.
6. SB 375 Sustainable Communities Strategies
   - Increased stringency of 2035 targets.
7. Post-2020 Cap-and-Trade Program
   - Declining capacities, continued linkage with Québec, and linkage to Ontario, Canada.
   - The ARB will look for opportunities to strengthen the program to support more air quality co-benefits, including specific program design elements. In fall 2016, the ARB staff described potential future amendments including reducing the offset usage limit, redesigning the allocation strategy to reduce free allocation to support increased technology and energy investment at covered entities and reducing allocation if the covered entity increases criteria or toxics emissions over some baseline.
8. 20 percent reduction in GHG emissions from the refinery sector.
9. By 2018, develop Integrated Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

Senate Bill 375—the Sustainable Communities and Climate Protection Act of 2008. SB 375 was signed into law on September 30, 2008. According to SB 375, the transportation sector is the largest contributor of GHG emissions, which emits over 40 percent of the total GHG emissions in California. SB 375 states, "Without improved land use and transportation policy, California will not be able to achieve the goals of AB 32." SB 375 does the following: (1) requires metropolitan planning organizations to include sustainable community strategies in their regional transportation plans for reducing GHG emissions, (2) aligns planning for transportation and housing, and (3) creates specified incentives for the implementation of the strategies.

Concerning the California Environmental Quality Act (CEQA), SB 375, as codified in Public Resources Code Section 21159.28, states that CEQA findings determinations for certain projects are not required to reference, describe, or discuss (1) growth inducing impacts or (2) any project-specific or cumulative impacts from cars and light duty truck trips generated by the project on global warming or the regional transportation network if the project:

1. Is in an area with an approved sustainable communities strategy or an alternative planning strategy that the ARB accepts as achieving the greenhouse gas emission reduction targets;
2. Is consistent with that strategy (in designation, density, building intensity, and applicable policies); and
3. Incorporates the mitigation measures required by an applicable prior environmental document.

Assembly Bill 1493 Pavley Regulations and Fuel Efficiency Standards. California AB 1493, enacted on July 22, 2002, required the ARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. Implementation of the regulations was delayed by lawsuits filed by automakers and by the EPA's denial of an implementation waiver. The EPA subsequently granted the requested waiver in 2009, which was upheld by the United States District Court for the District of Columbia in 2011.[23] The standards were to be phased in during the 2009 through 2016 model years.[24]

The second phase of the implementation for the Pavley Bill was incorporated into amendments to the Low Emission Vehicle Program referred to as Low Emission Vehicle (LEV) III or the Advanced Clean Cars program. The Advanced Clean Car program combines the control of smog-causing pollutants and GHG emissions into a single coordinated package of requirements for model years 2017 through 2025. The regulations are anticipated to reduce GHGs from new cars by 34 percent from 2016 levels by 2025. The new rules will reduce pollutants from gasoline and diesel-powered cars, and deliver increasing numbers of zero-emission technologies, such as full battery electric cars, newly emerging plug-in hybrid electric vehicles and hydrogen fuel cell cars. The regulations will also ensure adequate fueling infrastructure is available for the increasing numbers of hydrogen fuel cell vehicles planned for deployment in California.[25]

Senate Bill 1368—Emission Performance Standards. In 2006, the State Legislature adopted SB 1368, which was subsequently signed into law by the Governor. SB 1368 directs the California Public Utilities Commission to adopt a performance standard for GHG emissions for the future power purchases of California utilities. SB 1368 seeks to limit carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements for energy longer than 5 years from resources that exceed the emissions of a relatively clean, combined cycle natural gas power plant. Because of the carbon content of its fuel source, a coal-fired plant cannot meet this

[23] California Air Resources Board (ARB). 2013. Clean Car Standards—Pavley, Assembly Bill 1493. Website: http://www.arb.ca.gov/cc/ccms/ccms.htm. Accessed January 21, 2021.
[24] California Air Resources Board (ARB). 2013. Facts About the Clean Cars Program. Website: http://www.arb.ca.gov/msprog/zevprog/factsheets/advanced_clean_cars_eng.pdf. Accessed January 21, 2021.
[25] California Air Resources Board (ARB). 2011. Status of Scoping Plan Recommended Measures. Website: www.arb.ca.gov/cc/scoping plan/sp_measures_implementation_timeline.pdf. Accessed January 21, 2021.

standard because such plants emit roughly twice as much carbon as natural gas, combined cycle plants. Accordingly, the new law effectively prevents California's utilities from investing in, otherwise financially supporting, or purchasing power from new coal plants located in or out of the State. The California Public Utilities Commission adopted the regulations required by SB 1368 on August 29, 2007. The regulations implementing SB 1368 establish a standard for baseload generation owned by, or under long-term contract to publicly owned utilities, of 1,100 pounds CO_2 per megawatt-hour (MWh).

Senate Bill 1078—Renewable Electricity Standards. On September 12, 2002, Governor Gray Davis signed SB 1078, requiring California to generate 20 percent of its electricity from renewable energy by 2017. SB 107 changed the due date to 2010 instead of 2017. On November 17, 2008, Governor Arnold Schwarzenegger signed Executive Order S-14-08, which established a Renewable Portfolio Standard target for California requiring that all retail sellers of electricity serve 33 percent of their load with renewable energy by 2020. Governor Schwarzenegger also directed the ARB (Executive Order S-21-09) to adopt a regulation by July 31, 2010, requiring the State's load serving entities to meet a 33 percent renewable energy target by 2020. The ARB Board approved the Renewable Electricity Standard on September 23, 2010, by Resolution 10-23.

Senate Bill 350—Clean Energy and Pollution Reduction Act of 2015. The Clean Energy and Pollution Reduction Act (SB 350) established clean energy, clean air, and GHG reduction goals. The California Energy Commission (CEC) is working with other State agencies to implement the bill. Key provisions include an increase in the Renewables Portfolio Standard (RPS), higher energy efficiency requirements for buildings, initial strategies toward a regional electricity grid, and improved infrastructure for electric vehicle charging stations. Provisions for a 50 percent reduction in the use of petroleum Statewide were removed from the bill due to opposition and concern that it would prevent the bill's passage. Specifically, SB 350 requires the following to reduce Statewide GHG emissions:

- Increase the amount of electricity procured from renewable energy sources from 33 percent to 50 percent by 2030, with interim targets of 40 percent by 2024, and 25 percent by 2027.
- Double the energy efficiency in existing buildings by 2030. This target will be achieved through the California Public Utility Commission (CPUC), the CEC, and local publicly owned utilities.
- Reorganize the role of the Independent System Operator (ISO) to develop more regional electrify transmission markets and to improve accessibility in these markets, which will facilitate the growth of renewable energy markets in the western United States.[26]

SBX 7-7—The Water Conservation Act of 2009. The legislation directs urban retail water suppliers to set individual 2020 per capita water use targets and to begin implementing conservation measures to achieve those goals. Meeting this Statewide goal of 20 percent decrease in demand will result in a reduction of almost 2 million acre-feet in urban water use in 2020.

[26] California Legislative Information (California Leginfo). 2015. Senate Bill 350 Clean Energy and Pollution Reduction Act of 2015. Website: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB350. Accessed January 21, 2021.

Senate Bill 100—The 100 Percent Clean Energy Act of 2018. The legislation directs the CPUC, CEC, and ARB to plan for 100 percent of total retail sales of electricity in California to come from eligible renewable energy resources and zero-carbon resources by December 31, 2045. This Act amends Sections 399.11, 399.15, and 399.30 of, and adds Section 454.53 to, the Public Utilities Code, relating to energy.

Executive Orders Related to GHG Emissions

California's executive branch has taken several actions to reduce GHGs through the use of Executive Orders. While directive in nature and not regulatory, they set the tone for the State and guide the actions of State agencies.

Executive Order S-3-05. Former California Governor Arnold Schwarzenegger announced on June 1, 2005, through Executive Order S-3-05, the following reduction targets for GHG emissions:

- By 2010, reduce greenhouse gas emissions to 2000 levels.
- By 2020, reduce greenhouse gas emissions to 1990 levels.
- By 2050, reduce greenhouse gas emissions to 80 percent below 1990 levels.

The 2050 reduction goal represents what some scientists believe is necessary to reach levels that will stabilize the climate. The 2020 goal was established to be a mid-term target. Because this is an Executive Order, the goals are not legally enforceable for local governments or the private sector.

Executive Order B-30-15. On April 29, 2015, Governor Edmund G. Brown Jr. issued an Executive Order to establish a California GHG reduction target of 40 percent below 1990 levels by 2030. The Governor's Executive Order aligns California's GHG reduction targets with those of leading international governments ahead of the United Nations Climate Change Conference in Paris late 2015. The Executive Order sets a new interim Statewide GHG emission reduction target to reduce GHG emissions to 40 percent below 1990 levels by 2030 in order to ensure California meets its target of reducing GHG emissions to 80 percent below 1990 levels by 2050, and directs the ARB to update the Climate Change Scoping Plan to express the 2030 target in terms of MM CO_2e. The Executive Order also requires the State's climate adaptation plan to be updated every three years and for the State to continue its climate change research program, among other provisions. As with Executive Order S-3-05, this Executive Order is not legally enforceable against local governments and the private sector. Legislation that would update AB 32 to make post-2020 targets and requirements a mandate is in process in the State Legislature.

Executive Order S-01-07—Low Carbon Fuel Standard. The Governor signed Executive Order S 01-07 on January 18, 2007. The order mandates that a Statewide goal shall be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020. In particular, the Executive Order established a LCFS and directed the Secretary for Environmental Protection to coordinate the actions of the CEC, the ARB, the University of California, and other agencies to develop and propose protocols for measuring the "lifecycle carbon intensity" of transportation fuels. The ARB adopted the LCFS on April 23, 2009.

The LCFS was subject to legal challenge in 2011. Ultimately, on August 8, 2013, the Fifth District Court of Appeal (California) ruled that the ARB failed to comply with CEQA and the Administrative Procedure Act when adopting regulations for LCFS. In a partially published opinion, the Court of Appeal directed that Resolution 09-31 and two Executive Orders of the ARB approving LCFS regulations promulgated to reduce GHG emissions be set aside. However, the Court tailored its remedy to protect the public interest by allowing the LCFS regulations to remain operative while the ARB complies with the procedural requirements it failed to satisfy.

To address the Court ruling, the ARB prepared and considered a new LCFS regulation in February 2015. The proposed LCFS regulation was required to contain revisions to the 2010 LCFS as well as new provisions designed to foster investments in the production of the low carbon fuels, offer additional flexibility to regulated parties, update critical technical information, simplify and streamline program operations, and enhance enforcement. The second public hearing for the new LCFS regulation was held on September 24, 2015, and September 25, 2015, where the LCFS regulation was adopted. The Final Rulemaking Package adopting the regulation was filed with the Office of Administrative Law (OAL) on October 2, 2015. The OAL approved the regulation on November 16, 2015.[27]

Executive Order S-13-08. Executive Order S-13-08 states that "climate change in California during the next century is expected to shift precipitation patterns, accelerate sea level rise and increase temperatures, thereby posing a serious threat to California's economy, to the health and welfare of its population and to its natural resources." Pursuant to the requirements in the order, the 2009 California Climate Adaptation Strategy[28] was adopted, which is the ". . . first statewide, multi-sector, region-specific, and information-based climate change adaptation strategy in the United States." Objectives include analyzing risks of climate change in California, identifying and exploring strategies to adapt to climate change, and specifying a direction for future research.

Executive Order N-79-20. On September 23, 2020, Governor Gavin Newsom issued an Executive Order establishing a goal that 100 percent of new passenger cars and trucks sold in California shall be zero-emission by 2035. The Executive Order also sets a goal that, where feasible, all operations include zero-emission medium- and heavy-duty trucks by 2045, and drayage trucks by 2035. Off-road vehicles have a goal to transition to 100 percent ZEVs by 2035, where feasible.

California Regulations and Building Codes

California has a long history of adopting regulations to improve energy efficiency in new and remodeled buildings. These regulations have kept California's energy consumption relatively flat even with rapid population growth.

Title 20 Appliance Efficiency Regulations. California Code of Regulations, Title 20: Division 2, Chapter 4, Article 4, Sections 1601-1608: Appliance Efficiency Regulations regulates the sale of appliances in California. The Appliance Efficiency Regulations include standards for both federally

[27] California Air Resources Board (ARB). 2015. Low Carbon Fuel Standard Regulation. Website: http://www.arb.ca.gov/regact/2015/lcfs2015/lcfs2015.htm. Accessed January 21, 2021.

[28] California Natural Resources Agency. 2009. 2009 California Climate Adaptation Strategy. Website: http://www.climatechange.ca.gov/adaptation/strategy/index.html.

regulated appliances and non-federally regulated appliances. Twenty-three categories of appliances are included in the scope of these regulations. The standards within these regulations apply to appliances that are sold or offered for sale in California, except those sold wholesale in California for final retail sale outside the State and those designed and sold exclusively for use in recreational vehicles or other mobile equipment.[29]

Title 24 Energy Efficiency Standards. California Code of Regulations Title 24 Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings, was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases GHG emissions. The newest version of Title 24 adopted by the CEC went into effect on January 1, 2017.[30] The 2019 Building Energy Efficiency Standards went into effect on January 1, 2020. One of the notable changes in the 2019 Title 24 Standards includes the solar photovoltaic systems requirement for new low-rise residential homes.

Title 24 California Green Building Standards Code. California Code of Regulations, Title 24, Part 11 is a comprehensive and uniform regulatory code for all residential, commercial, and school buildings that went in effect January 1, 2011. The code is updated on a regular basis, with the most recent update consisting of the 2019 California Green Building Code Standards that became effective January 1, 2020.[31] Local jurisdictions are permitted to adopt more stringent requirements, as State law provides methods for local enhancements. The State Building Code provides the minimum standard that buildings need to meet to be certified for occupancy, which is generally considered one of the most stringent building codes in the country and is enforced by the local building official.

Model Water Efficient Landscape Ordinance. The Model Water Efficient Landscape Ordinance (Ordinance) was required by AB 1881 Water Conservation Act. The bill required local agencies to adopt a local landscape ordinance at least as effective in conserving water as the Model Ordinance by January 1, 2010. Reductions in water use of 20 percent consistent with (SBX-7-7) 2020 mandate are expected with implementation of the Ordinance. Governor Brown's Drought Executive Order of April 1, 2015 (Executive Order B-29-15) directed the California Department of Water Resources (DWR) to update the Ordinance through expedited regulation. The California Water Commission approved the revised Ordinance on July 15, 2015, which became effective on December 15, 2015. New development projects that include landscaped areas of 500 square feet or more are subject to the Ordinance. The update requires:

- More efficient irrigation systems
- Incentives for graywater usage

[29] Bay Area Air Quality Management District (BAAQMD). 2017. CEQA Air Quality Guidelines. May. Website: http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed January 21, 2021.

[30] California Energy Commission (CEC). 2016. 2016 Building Energy Efficiency Standards Frequently Asked Questions. Website: http://www.energy.ca.gov/title24/2016standards/rulemaking/documents/2016_Building_Energy_Efficiency_Standards_FAQ.pdf. Accessed February 2, 2021.

[31] California Building Standards Commission. 2019. 2019 California Green Building Standards Code, Title 24, Part 11. Website: https://codes.iccsafe.org/content/CAGBSC2019/cover. Accessed July 20, 2021.

- Improvements in on-site stormwater capture
- Limiting the portion of landscapes that can be planted with high water use plants
- Reporting requirements for local agencies.

Senate Bill 97 and the CEQA Guidelines Update. Passed in August 2007, SB 97 added Section 21083.05 to the Public Resources Code. The Code states "(a) On or before July 1, 2009, the Office of Planning and Research shall prepare, develop, and transmit to the Resources Agency guidelines for the mitigation of GHG emissions or the effects of GHG emissions as required by this division, including, but not limited to, effects associated with transportation or energy consumption. (b) On or before January 1, 2010, the Resources Agency shall certify and adopt guidelines prepared and developed by the Office of Planning and Research pursuant to subdivision (a)."

Section 21097 was also added to the Public Resources Code, which provided an exemption until January 1, 2010, for transportation projects funded by the Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006 or projects funded by the Disaster Preparedness and Flood Prevention Bond Act of 2006, in stating that the failure to analyze adequately the effects of GHGs would not violate CEQA. The Natural Resources Agency completed the approval process, and the amendments became effective on March 18, 2010.

The 2010 CEQA Amendments provide guidance to public agencies regarding the analysis and mitigation of the effects of GHG emissions in CEQA documents. The CEQA Amendments fit within the existing CEQA framework by amending existing CEQA Guidelines to reference climate change.

Section 15064.4(b) of the CEQA Guidelines provides direction for lead agencies for assessing the significance of impacts of GHG emissions:

- The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting.
- Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
- The extent to which the project complies with regulations or requirements adopted to implement a Statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must include specific requirements that reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

The CEQA Guidelines amendments do not identify a threshold of significance for GHG emissions, nor do they prescribe assessment methodologies or specific mitigation measures. Instead, they call for a "good-faith effort, based on available information, to describe, calculate, or estimate the amount of greenhouse gas emissions resulting from a project." The amendments encourage lead agencies to consider many factors in performing a CEQA analysis and preserve lead agencies' discretion to make

their own determinations based upon substantial evidence. The amendments also encourage public agencies to make use of programmatic mitigation plans and programs from which to tier when they perform individual project analyses.

Also amended were CEQA Guidelines Sections 15126.4 and 15130, which address mitigation measures and cumulative impacts, respectively. GHG mitigation measures are referenced in general terms, but no specific measures are championed. The revision to the cumulative impact discussion requirement (Section 15130) simply directs agencies to analyze GHG emissions in an Environmental Impact Report (EIR) when a project's incremental contribution of emissions may be cumulatively considerable; however, it does not answer the question of when emissions are cumulatively considerable.

Section 15183.5 permits programmatic GHG analysis and later project-specific tiering, as well as the preparation of Greenhouse Gas Reduction Plans. Compliance with such plans can support a determination that a project's cumulative effect is not cumulatively considerable, according to Section 15183.5(b).

In addition, the amendments revised Appendix F of the CEQA Guidelines, which focuses on Energy Conservation. The sample environmental checklist in Appendix G was amended to include GHG questions.

CEQA emphasizes that the effects of GHG emissions are cumulative, and should be analyzed in the context of CEQA's requirements for cumulative impacts analysis (see CEQA Guidelines Section 15130(f)).

California Supreme Court GHG Ruling

In a November 30, 2015, ruling on the Newhall Ranch project, the California Supreme Court in *Center for Biological Diversity v. California Department of Fish and Wildlife* (*Newhall Ranch*) concluded that whether the project was consistent with meeting Statewide emission reduction goals is a legally permissible criterion of significance, but the significance finding for the project was not supported by a reasoned explanation based on substantial evidence.[32] The Court offered potential solutions to address this issue summarized below:

Specifically, the Court advised that:

- **Substantiation of Project Reductions from BAU**. A lead agency may use a BAU comparison based on the Scoping Plan's methodology if it also substantiates the reduction a particular project must achieve to comply with Statewide goals. (page 25).
- **Compliance with Regulatory Programs or Performance Based Standards**. A lead agency "might assess consistency with AB 32's goal in whole or part by looking to compliance with regulatory programs designed to reduce greenhouse gas emissions from particular activities." (page 26).

[32] Supreme Court of California. 2015. Center for Biological Diversity v. California Department of Fish and Wildlife. November 30. Website: http://climatecasechart.com/case/center-for-biological-diversity-v-california-department-of-fish-and-wildlife/. Accessed February 14, 2021.

- **Compliance with GHG Reduction Plans or Climate Action Plans**. A lead agency may utilize "geographically specific GHG emission reduction plans" such as climate action plans or greenhouse gas emission reduction plans to provide a basis for the tiering or streamlining of project-level CEQA analysis (page 26).
- **Compliance with Local Air District Thresholds**. A lead agency may rely on "existing numerical thresholds of significance for greenhouse gas emissions" adopted by, for example, local air districts (page 27).

Therefore, for purposes of this analysis, consistent with CEQA Guidelines Appendix G, the three factors identified in CEQA Guidelines Section 15064.4 and the Newhall Ranch opinion, the GHG impacts would be considered significant if the proposed project would:

- Conflict with a compliant GHG Reduction Plan if adopted by the lead agency;
- Exceed the San Joaquin Air Pollution Control District (Valley Air District) GHG Reduction Threshold; or
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emission of GHGs.

As further discussed under Section 3.8.4, Impacts and Mitigation Measures, these thresholds are consistent with the Appendix G Environmental Checklist questions from the CEQA Guidelines for GHG emissions.

San Joaquin Air Pollution Control District Regulations

Climate Change Action Plan

On August 21, 2008, the Valley Air District Governing Board approved a proposal called the Climate Change Action Plan (CCAP). The CCAP began with a public process bringing together stakeholders, land use agencies, environmental groups, and business groups to conduct public workshops to develop comprehensive policies for CEQA Guidelines, a carbon exchange bank, and voluntary GHG emissions mitigation agreements for the Governing Board's consideration. The CCAP contains the following goals and actions:

- Develop GHG significance thresholds to address CEQA projects with GHG emission increases.
- Develop the San Joaquin Valley Carbon Exchange for banking and trading GHG reductions.
- Authorize use of the SJVAPCD [Valley Air District's] existing inventory reporting system to allow use for GHG reporting required by AB 32 regulations.
- Develop and administer GHG reduction agreements to mitigate proposed emission increases from new projects.
- Support climate protection measures that reduce greenhouse gas emissions as well as toxic and criteria pollutants. Oppose measures that result in a significant increase in toxic or criteria pollutant emissions in already impacted areas.

On December 17, 2009, the Valley Air District Governing Board adopted "Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA," and the policy "District Policy—Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency." The Valley Air District concluded that the existing science is inadequate to support quantification of the impacts that project-specific GHG emissions have on global climatic change. The Valley Air District found the effects of project-specific emissions to be cumulative, and without mitigation, their incremental contribution to global climatic change could be considered cumulatively considerable. The Valley Air District found that this cumulative impact is best addressed by requiring all projects to reduce their GHG emissions, whether through project design elements or mitigation.

The Valley Air District's approach is intended to streamline the process of determining whether project-specific GHG emissions would have a significant effect. Projects exempt from the requirements of CEQA, and projects complying with an approved plan or mitigation program would be determined to have a less than significant cumulative impact. Such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources and must have a certified final CEQA document.

For non-exempt projects, those projects for which there is no applicable approved plan or program, or those projects not complying with an approved plan or program, the lead agency must evaluate the project against performance-based standards and would require the adoption of design elements, known as a Best Performance Standard, to reduce GHG emissions. The Best Performance Standards (BPS) have not yet fully been established, though they must be designed to affect a 29 percent reduction when compared with the BAU projections identified in the ARB's AB 32 Scoping Plan.

BAU represents the emissions that would occur in 2020 if the average baseline emissions during the 2002–2004 period were grown to 2020 levels, without control. These standards thus would carry with them pre-quantified emissions reductions, eliminating the need for project-specific quantification. Therefore, projects incorporating BPS would not require specific quantification of GHG emissions, and automatically would be determined to have a less than significant cumulative impact for GHG emissions.

For stationary source permitting projects, BPS means, "The most stringent of the identified alternatives for control of GHG emissions, including type of equipment, design of equipment and operational and maintenance practices, which are achieved-in-practice for the identified service, operation, or emissions unit class." The Valley Air District has identified BPS for the following sources: boilers; dryers and dehydrators; oil and gas extraction, storage, transportation, and refining operations; cogeneration; gasoline dispensing facilities; volatile organic compound control technology; and steam generators.

For development projects, BPS means, "Any combination of identified GHG emission reduction measures, including project design elements and land use decisions that reduce project-specific GHG emission reductions by at least 29 percent compared with business as usual."

Projects not incorporating BPS would require quantification of GHG emissions and demonstration that BAU GHG emissions have been reduced or mitigated by 29 percent. As stated earlier, the ARB's adjusted inventory reduced the amount required by the State to achieve 1990 emission levels from 29 percent to 21.7 percent to account for slower growth experienced since the 2008 recession. According to Valley Air District guidance, quantification of GHG emissions would be required for all projects for which the lead agency has determined that an EIR is required, regardless of whether the project incorporates BPS.

San Joaquin Valley Carbon Exchange

The Valley Air District initiated work on the San Joaquin Valley Carbon Exchange in November 2008. The purpose of the carbon exchange is to quantify, verify, and track voluntary GHG emissions reductions generated within the San Joaquin Valley. However, the Valley Air District has pursued an alternative strategy that incorporates the GHG emissions into its existing Rule 2301—Emission Reduction Credit Offset Banking that formerly only addressed criteria pollutants. The Valley Air District is also participating with the California Air Pollution Control Officers Association (CAPCOA), of which it is a member, in the CAPCOA Greenhouse Gas Reduction Exchange (GHG Rx). The GHG Rx is operated cooperatively by air districts that have elected to participate. Participating districts have signed a Memorandum of Understanding (MOU) with CAPCOA and agree to post only those credits that meet the Rx standards for quality. The objective is to provide a secure, low-cost, high-quality, GHG exchange for credits created in California. The GHG Rx is intended to help fulfill compliance obligations, or mitigation needs of local projects subject to environmental review, reducing the uncertainty of using credits generated in distant locations.

Rule 2301

While the CCAP indicated that the GHG emission reduction program would be called the San Joaquin Valley Carbon Exchange, the Valley Air District incorporated a method to register voluntary GHG emission reductions into its existing Rule 2301-Emission Reduction Credit Banking through amendments of the rule. Amendments to the rule were adopted on January 19, 2012. The purposes of the amendments to the rule include the following:

- Provide an administrative mechanism for sources to bank voluntary GHG emission reductions for later use.
- Provide an administrative mechanism for sources to transfer banked GHG emission reductions to others for any use.
- Define eligibility standards, quantitative procedures, and administrative practices to ensure that banked GHG emission reductions are real, permanent, quantifiable, surplus, and enforceable.

Local Regulations

The City of Tracy does not currently have a formal GHG emissions reduction plan or recommended emissions thresholds for determining significance associated with GHG emissions from development projects. It does, however, have an adopted Sustainability Action Plan.

City of Tracy General Plan

Goal AQ-1 Improved air quality and reduced greenhouse gas emissions.

Objective AQ-1.2 Promote development that minimizes air pollutant and greenhouse gas emissions and their impact on sensitive receptors as a result of indirect and stationary sources.

Policies

Policy P4 New development projects should incorporate energy efficient design features for HVAC, lighting systems and insulation that exceed Title 24.

Policy P5 Use of solar water and pool heaters is encouraged.

Policy P6 Installation of solar voltaic panels on new homes and businesses shall be encouraged.

Policy P7 Trees should be planted on the south- and west-facing sides of new buildings or building undergoing substantial renovation in order to reduce energy usage.

City of Tracy Sustainability Action Plan

The City of Tracy adopted its Sustainability Action Plan in 2011. The City's plan outlines the sustainability targets for the year 2020. Those targets relating to GHG emissions and their corresponding sustainability measures are presented below.

Greenhouse Gas Emissions

- **Target No. 1:** 15 percent reduction in per capita emissions from the 2006 baseline of 11.6 metric ton (MT) of CO_2e.

E-1: Green Building Ordinance

Develop an incentives-based Green Building Ordinance that promotes energy efficient design for new buildings. As part of this Ordinance:

a) Adopt the 2010 California Green Building Standards Code (Title 24, Part 11, CCR).
b) Encourage energy efficiency measures for new warehouses and warehousing in association with other commercial and industrial uses, including the use of reflective pavement and natural gas or electricity use for yard equipment.
c) Encourage the use of cement substitutes and recycled building materials for new construction.
d) Encourage the use of energy efficient appliances that meet Energy Star standards when higher than Title 24 and the use of energy efficient lighting technologies that meet or exceed Title 24 standards.
e) Encourage all new buildings to be constructed to allow for the easy, cost-effective installation of future solar energy systems. "Solar ready" features should include proper solar orientation (i.e., south facing roof area sloped at 20° to 55° from the horizontal); clear access on the south sloped roof (i.e., no chimneys, heating vents, plumbing vents, etc.); electrical conduit

installed for solar electric system wiring; plumbing installed for solar hot water system; and space provided for a solar hot water storage tank.

f) Encourage any roof to have a Solar Reflectance Index (SRI) of at least 29.
g) Encourage that residential projects of six units or more participate in the California Energy Commission's New Solar Homes Partnership, which provides rebates to developers of six units or more who offer solar power in 50 percent of new units and is a component of the California Solar Initiative or a similar program with solar power requirements equal to or greater than those of the California Energy Commission's New Solar Homes Partnership.
h) Partner with Pacific Gas and Electric or other appropriate energy providers and the California Public Utilities Commission to develop an incentive program for solar installation on new and retrofitted warehouses. Consider a mandatory minimum solar requirement for new warehouse space.
i) Encourage that new or major rehabilitations of commercial, office, or industrial development greater than or equal to 25,000 square feet in size incorporate solar or other renewable energy generation to provide 15 percent or more of the project's energy needs. Major rehabilitations are defined as additions of 25,000 square feet of office/retail commercial or 100,000 square feet of industrial floor area.
j) In partnership with Pacific Gas and Electric and other appropriate energy providers, develop a program that provides incentives that meet or exceed those of AB 1470. AB 1470, the Solar Hot Water Energy Efficiency Act of 2007, directs the California Energy Commission to establish a 10-year, Statewide incentive program to encourage the installation of 200,000 solar water heating systems to offset natural gas usage for water and space heating. The incentives would be funded by a utility company surcharge on certain natural gas customers up to $250 million over 10 years.
k) Develop a public-private partnership to provide incentives for cogeneration projects for commercial and industrial facilities using outside funds.
l) Encourage the development of alternative energy projects and conduct a review of City policies and ordinances to address alternative energy production. Develop protocols for alternative energy storage, such as biodiesel, hydrogen, and/or compressed air. Continue to research the location needs for alternative energy producers and send direct, targeted marketing pieces to alternative energy producers that are appropriate for Tracy. Identify possible City-owned sites for production of local renewable energy sources such as solar, wind, small hydro, and biogas.
m) Encourage the inclusion of alternative energy facilities that are a secondary use to another project. Identify the best means to avoid noise, aesthetic, and other potential land use compatibility conflicts for alternative energy facilities (e.g., installing tracking solar photovoltaics [PV] or angling fixed solar PV in a manner that reduces glare to surrounding land uses). Identify and remove regulatory or procedural barriers to producing renewable energy as a secondary use to another project, such as updating codes, guidelines, and zoning.
n) Encourage the use of locally-sourced, sustainable, salvaged and recycled-content materials and other materials that have low production energy costs for building materials, hard surfaces, and non-plant landscaping.

E-2: Energy Efficiency in Site Planning and Design

Energy

- **Target No. 4a:** 15 percent reduction in community energy consumption from 2006 baseline levels.
- **Target No. 4b:** 10 percent reduction in the municipal peak electrical load from 2006 baseline levels.

Transportation and Land Use

- **Target No. 6a:** 20 percent reduction in the community [Vehicle Miles Traveled] VMT per capita from current (2006) levels.
- **Target No. 6b:** 20 percent reduction in the municipal VMT from 2006 baseline levels.

Economic Development

- **Target No. 18:** 10,000 square feet of neighborhood-serving retail within ¼ mile of 75 percent of all residents.
- **Target No. 20:** 10 percent of jobs are "green" by practice or product.

City of Tracy General Plan

In February of 2011, the City of Tracy adopted its current General Plan. The City's General Plan applicable goals and policies relating to the reduction of greenhouse gas emissions are listed below.

Air Quality Element

Goal AQ-1 Improved air quality and reduced greenhouse gas emissions

Objective AQ-1.1 Improve air quality and reduce greenhouse gas emissions through land use planning decisions.

Policies:

Policy P1 The City shall promote land use patterns that reduce the number and length of motor vehicle trips.

Objective AQ-1.2 Promote development that minimizes air pollutant and greenhouse gas emissions and their impact on sensitive receptors as a result of indirect and stationary sources.

Policies:

Policy P3 Developers shall implement best management practices to reduce air pollutant emissions associated with the construction and operation of development projects.

Policy P4 New development projects should incorporate energy efficient design features for HVAC, lighting systems and insulation that exceed Title 24.

Policy P5 Use of solar water and pool heaters is encouraged.

Policy P6 Installation of solar voltaic panels on new homes and businesses shall be encouraged.

Policy P7 Trees should be planted on the south- and west-facing sides of new buildings or building undergoing substantial renovation in order to reduce energy usage.

Policy P8 In accordance with San Joaquin Air Pollution Control District regulations, woodburning fireplaces shall not be installed in new and significantly renovated residential projects.

Policy P9 New developments shall follow the current requirements of the SJVAPCD [Valley Air District] with respect to woodburning fireplaces and heaters.

Objective AQ-1.3 Provide a diverse and efficient transportation system that minimizes air pollutant and greenhouse gas emissions.

Policies:

Policy P1 The City shall continue to work with the San Joaquin Council of Governments on regional transportation solutions.

Policy P2 The City shall encourage Caltrans to implement High Occupancy Vehicle (HOV) lanes on regional freeways in and around the Tracy Planning Area.

Policy P4 The City shall support efforts to retain the railroad right-of-way for future public transit and bicycle facilities.

Policy P5 The City shall require direct pedestrian and bicycle linkages from residential areas to parks, schools, retail areas, high-frequency transit facilities and major employment areas.

Policy P6 The City shall coordinate with regional rideshare and transit incentive programs.

Objective AQ-1.4 Support local and regional air quality improvement efforts.

Policies:

Policy P1 The City shall continue to consult with other local, regional and State agencies on air quality planning efforts as well as encourage community participation in air quality planning.

Policy P2 The City shall be proactive in educating the public about the linkages between land use, transportation, and air quality.

Circulation Element

Goal CIR-1 A roadway system that provides access and mobility for all of Tracy's residents and businesses while maintaining the quality of life in the community.

Objective CIR-1.2 Provide a high level of street connectivity.

Policies:

Policy P1 The City shall ensure that the street system results in a high level of connectivity, especially between residences and common local destinations, such as schools, Village Centers, retail areas and parks.

Policy P2 The City shall implement a connected street pattern with multiple route options for vehicles, bikes and pedestrians.

Policy P3 New development shall be designed to provide vehicular, bicycle and pedestrian connections with adjacent developments.

Objective CIR-1.6 Maximize traffic safety for automobile, transit, bicycle users, and pedestrians.

Policies:

Policy P1 The City shall design streets using context-sensitive design principles that enhance safety for all modes of travel.

Objective CIR-1.8 Minimize transportation-related energy use and impacts on the environment.

Policies:

Policy P3 The City shall encourage the use of non-motorized transportation and low emission vehicles.

Goal CIR-3 Safe and convenient bicycle and pedestrian travel as alternative modes of transportation in and around the City.

Objective CIR-3.1 Achieve a comprehensive system of citywide bikeways and pedestrian facilities.

Policies:

Policy P4 The City's bicycle and pedestrian system shall have a high level of connectivity, especially between residences and common local destinations, such as schools, shopping and parks. A higher level of bicycle and pedestrian connectivity is defined as a shorter or similar distance to common destinations for bicycles and pedestrians compared to distances for vehicles.

Objective CIR-4.1 Promote public transit as an alternative to the automobile.

Policies:

Policy P1 The City shall promote efficient and affordable public transportation that serves all users.

Economic Development Element

Policies:

Policy P1 The City shall encourage businesses that use green practices.

Policy P2 The City shall conduct public education and outreach to support employment opportunities that minimize the need for automobile trips, such as live/work, telecommuting, satellite work centers, and home occupations, in addition to mixed-use development strategies.

3.8.4 - Impacts and Mitigation Measures

Significance Criteria

As previously discussed, under CEQA and as held in the California Supreme Court's decision in *Center for Biological Diversity v. California Department of Fish and Wildlife*, GHG impacts would be considered significant if the proposed project would:

- Conflict with a compliant GHG Reduction Plan if adopted by the lead agency;
- Exceed the San Joaquin Air Pollution Control District (Valley Air District) GHG Reduction Threshold; or
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emission of GHGs.

As previously mentioned, these thresholds are consistent with the Appendix G Environmental Checklist questions of the CEQA Guidelines. The City of Tracy does not currently have a formal GHG emissions reduction plan or recommended emissions thresholds for determining significance associated with GHG emissions from development projects. Therefore, the first impact criterion, "conflict with a compliant GHG Reduction Plan if adopted by the lead agency," is not applicable for the proposed project. Moreover, the other two impact criteria presented above closely align with the two Appendix G Environmental Checklist questions for GHG emissions. Therefore, the City is utilizing Appendix G of the State CEQA Guidelines as thresholds for the proposed project.

According to the CEQA Guidelines Appendix G Environmental Checklist, to determine whether greenhouse emissions impacts are significant environmental effects, the following questions are analyzed and evaluated. Would the project:

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

b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?

Section 15064.4(b) of the CEQA Guidelines' amendments for GHG emissions states that a lead agency may take into account the following three considerations in assessing the significance of impacts from GHG emissions.

- **Consideration No. 1**: The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting.

- **Consideration No. 2**: Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
- **Consideration No. 3**: The extent to which the project complies with regulations or requirements adopted to implement a Statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must include specific requirements that reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

The City of Tracy has not adopted its own GHG thresholds or prepared a Climate Action Plan that can be used as a basis for determining project significance, although it has adopted a Sustainability Action Plan, which is a non-qualifying GHG Reduction Plan. The Valley Air District Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA includes thresholds based on whether the project will reduce or mitigate GHG levels by 29 percent from BAU levels compared with 2005 levels.[33] This level of GHG reduction is based on the target established by ARB's AB 32 Scoping Plan, approved in 2008.

As explained more fully above, the 2010 Cap and Trade Inventory Update provided revised inventory projections to reflect slower growth in emissions during the recession and lower future year projections. The State's 2020 BAU inventory was reduced from 596 MMT CO_2e to 545 MMT CO_2e. The new GHG reduction level for the State to reach 1990 emission levels by 2020 is 21.7 percent from BAU in 2020. The First Update to the Climate Change Scoping Plan confirmed that the State is on track to achieve the 2020 target and to maintain and continue reductions beyond 2020 as required by AB 32.[34] In addition, the State has reported that the 2016 greenhouse gas inventory was below the 2020 target for the first time. Furthermore, the 2017 Scoping Plan states that California is on track to achieve the 2020 target. The proposed project is expected to become operational in phases beginning in 2023 and completely operational in 2025, which is beyond the AB 32 target year. Until a new threshold or BPS are identified for projects constructed after-2020, significance is based on making continued progress toward the SB 32 2030 goal.

For the reasons explained above, this analysis addresses consistency with the SB 32 targets and the 2017 Scoping Plan Update with an assessment of the project's reduction from BAU based on emissions in 2030 compared with the 21.7 percent reduction and with a consistency analysis. This approach provides estimates of project emissions in the new 2030 milestone year with the existing threshold to show the extent of progress achieved with existing regulations and the incorporation of specific project design features to address Considerations 1 and 2 above.

[33] San Joaquin Valley Air Pollution Control District (Valley Air District) 2009. "Final Staff Report, Addressing Greenhouse Gas Emissions Impacts under the California Environmental Quality Act." December 2009. Website: https://www.valleyair.org/Programs/CCAP/12-17-09/1%20CCAP%20-%20FINAL%20CEQA%20GHG%20Staff%20Report%20-%20Dec%2017%202009.pdf. Accessed January 29, 2021.

[34] California Air Resources Board (ARB). 2014. First Update to the Climate Change Scoping Plan. May. Website: https://ww2.arb.ca.gov/sites/default/files/classic//cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf. Accessed January 29, 2021.

Newhall Ranch

As discussed above, on November 30, 2015, the California Supreme Court issued its decision in *Newhall Ranch* invalidating the GHG analysis for a large master planned residential development in Los Angeles County consisting of over 20,000 residential dwelling units and other uses. In particular, the Court upheld: (1) the use of the Statewide emissions reduction goal in AB 32 as a significance criterion (pages 15–19), (2) the use of the Scoping Plan's BAU model "as a comparative tool for evaluating efficiency and conservation efforts" of the project (pages 18–19), and (3) a comparison of the project's expected emissions to a BAU model rather than a baseline of pre-project conditions (pages 15–19). However, the Court invalidated the GHG analysis on the grounds that the "administrative record discloses no substantial evidence that the Newhall Ranch's project-level reduction of 31 percent in comparison to [BAU] is consistent with achieving AB 32's Statewide goal of a 29 percent reduction from [BAU]." The Court indicated that a lead agency may use a BAU comparison based on the Scoping Plan's methodology if it also substantiates the reduction a particular project must achieve to comply with Statewide goals. The Court suggested a lead agency could examine the "data behind the Scoping Plan's business-as-usual model" to determine the necessary project-level reductions from new land use development at the proposed location (page 25). "Second, a lead agency might assess consistency with AB 32's goal in whole or part by looking to compliance with regulatory programs designed to reduce greenhouse gas emissions from particular activities."

The substantial evidence needed to support a project BAU threshold can be derived from data used to develop the Scoping Plan inventory and control strategy and from analysis conducted by the ARB to track progress in achieving the AB 32 2020 target. The critical factor in determining the appropriate project threshold is whether the State requires additional reductions beyond that achieved by regulations to achieve its target. If no additional reductions are required from individual projects, no nexus exists to require a project to mitigate its emissions. In that case the percentage reductions achieved by projects is the amount needed to reach the AB 32 target.

The State's regulatory program implementing the 2008 Scoping Plan is now fully mature. All regulations envisioned in the Scoping Plan have been adopted, and the effectiveness of those regulations has been estimated by the agencies during the adoption process and then tracked to verify their effectiveness after implementation. The combined effect of this successful effort is that the State now projects that it will meet the 2020 target and achieve continued progress toward meeting post-2020 targets. Governor Brown, in the introduction to Executive Order B-30-15, states "California is on track to meet or exceed the current target of reducing greenhouse gas emissions to 1990 levels by 2020, as established in the California Global Warming Solutions Act of 2006 (AB 32)."

The Supreme Court was concerned that new development may need to do more than existing development to reduce GHGs to demonstrate that it is doing its fair share of reductions. As will be shown below, new development does do more than existing development and, due to the nature of the sources of GHG emissions related to development, existing development is equally responsible for reducing emissions from the most important sources of emissions. It is important to note that most of the State's regulatory program applies to new and existing development.

The Scoping Plan reduction from BAU accounts for growth projected in the State and assumes that existing development would continue to emit GHGs at the same rate that occurred in the base year (2002–2004 average). The California Department of Finance Report E-5 predicted that population growth in California from 2005 to 2020 would be 13.2 percent. This means that development that existed in 2005 would have produced nearly 87 percent of the State's emissions in 2020. Conversely, new development would only be responsible for about 13 percent of the emissions generated during this timeframe. Accordingly, if measures to reduce emissions from existing development were not available, new development could not provide sufficient reductions to reach the 2020 target even if their emissions were reduced to net zero.

The State's regulatory program is able to target both new and existing development because the two most important strategies, motor vehicle fuel efficiency and emissions from electricity generation, obtain reductions equally from existing sources and new sources. This is because all vehicle operators use cleaner low carbon fuels and buy vehicles subject to the fuel efficiency regulations and all building owners or operators purchase cleaner energy from the grid that is produced by increasing percentages of renewable fuels. This includes regulations on mobile sources such as the Pavley standards that apply to all vehicles purchased in California, the LCFS that applies to all fuel used in California, and the RPS and Renewable Energy Standard that apply to utilities providing electricity to all California homes and businesses. The reduction strategy where new development is required to do more than existing development is building energy efficiency and energy use related to water conservation regulations. For example, new projects are subject to updated Title 24 Energy Efficiency Standards and the California Green Building Standards Code (CALGreen) and Model Water Efficient Landscape Ordinance (MWELO) water conservation requirements. Buildings constructed to the 2013 Title 24 standards use 30 percent less energy than buildings complying with the 2008 standards, with continued improvement expected under the new 2016 and 2019 standards. New buildings and landscapes are much more energy efficient and water efficient than the development that has been built over the past decades and will require much less energy.

As described above, the State requires an average reduction from all sources of the emission inventory of about 22 percent. The Scoping Plan strategy will achieve more than average reductions from energy and mobile source sectors, which are the primary sources related to development projects, and lower than average reductions from other sources such as agriculture. The amount of reduction estimated for each sector was based on technical feasibility and cost effectiveness. Review of the Scoping Plan inventory and strategy by FirstCarbon Solutions (FCS) for purposes of this analysis shows that the reduction from all development related sources is approximately 29 percent from BAU in order to make up for the below-average sectors and achieve the required 22 percent average reduction.

Consistent with the Newhall Ranch Court decision, a project BAU analysis, based on substantial evidence in the record, was prepared for this project that assesses "consistency with AB 32's goal in whole or part by looking to compliance with regulatory programs designed to reduce greenhouse gas emissions from particular activities." As detailed more fully below, the analysis shows the extent to which the proposed project complies with adopted regulations and the additional amount that will be achieved through specific project design features. At this point in time, no additional

reductions are required from new development beyond regulations for the State to achieve its target. Therefore, this analysis meets the consistency test described by the Supreme Court.

The analysis prepared for the proposed project also includes a qualitative assessment of compliance with Scoping Plan and relevant General Plan measures to support GHG significance findings under Impact GHG-2. There are no measures that identify specific requirements on individual development projects, but the analysis shows how the applicable measures affect project emission sources.

To determine significance, the analysis first quantifies project-related GHG emissions under a BAU scenario, and then compares these emissions with those emissions that would occur when all project-related design features are accounted for, and when compliance with applicable regulatory measures is assumed. The standard and methodology is explained in further detail, below.

Impact Analysis

Greenhouse Gas Emissions

Impact GHG-1: The proposed project would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

Construction

The project site is composed of six different parcels that are anticipated to be developed in separate phases (Phases 1, 2, and 3), each with their own development schedule. Phase 1 is the Tracy Alliance parcels, with construction assumed to be occurring in 2022 through 2023 and with operation assumed to begin in 2023. Phase 2 is the Suvik Farms parcels, with construction assumed to occur in 2023 through 2024 and operation assumed to begin in 2024. Phase 3 is the Zuriakat parcel, with construction assumed to occur in 2024 through 2025 and operation assumed beginning in 2025. Total GHG emissions generated during construction of the three phases were estimated using California Emissions Estimator Model (CalEEMod) Version 2016.3.2 and are presented in Table 3.8-2,

Table 3.8-3 and Table 3.8-4. The foregoing assumptions reflect a conservative analysis. This is because if the construction dates move out to later years, emissions are expected to decrease because of turnover for newer, cleaner, off-road construction equipment changes in emission factors used to calculate emissions of off-road equipment. However, in order to be conservative, this analysis also considers the possibility that there may be some degree of overlap between the phases. In a scenario where all three construction phrases overlap, the GHG emissions would increase only marginally due to slightly different vehicle fuel efficiencies for different model years and would not substantively affect the analysis and findings discussed below.

The Valley Air District does not specifically recommend assessing the significance of construction-related emissions. Moreover, any construction-related emissions would be temporary. However, other jurisdictions such as the South Coast Air Quality Management District (South Coast AQMD) and the Sacramento Metropolitan Air Quality Management District (SMAQMD) have concluded that construction emissions should be included since they may remain in the atmosphere for years after construction is complete. To provide a robust and conservative analysis, the City, in its discretion, has determined to include construction emissions, which were quantified for all phases of the

development and then amortized over a 30-year period. For buildings in general, it is reasonable to look at a 30-year time frame since this is a typical interval before a new building would reasonably require its first major renovation.[35] These amortized emissions were then added to operational emissions.

Table 3.8-2: Construction GHG Emissions–Phase 1

Construction Phase	On-site	Off-site[1]	Total MT CO_2e
2022			
Demolition + Site Preparation + Grading + Building Construction	2,290.28	973.14	3,263.42
2023			
Building Construction + Paving + Architectural Coating	588.08	270.01	858.09
		Total Construction Emissions	**4,121.51**
		Amortized over 30 years	**137.38**

Notes:
MT CO_2e = metric tons of carbon dioxide equivalent
[1] Off-site emissions refer to emissions which are generated during off-site activities associated with on-site development, such as truck traffic, worker vehicle trips, and equipment transport to and from the project site. Off-site emissions presented here do not refer to development activities or improvements which occur off-site.
Because of rounding, total MT CO_2e may be marginally different from CalEEMod output.
Source: CalEEMod output (Appendix B).

Table 3.8-3: Construction GHG Emissions–Phase 2

Construction Phase	On-site	Off-site[1]	Total MT CO_2e
2023			
Site Preparation + Grading + Building Construction	903.04	408.20	1,311.24
2024			
Building Construction + Paving + Architectural Coating	233.90	117.59	351.49
		Total Construction Emissions	**1,662.73**
		Amortized over 30 years	**55.42**

[35] International Energy Agency (IEA). 2008, July. Energy Efficiency Requirements in Building Codes, Energy Efficiency Policies for New Buildings.

Construction Phase	On-site	Off-site[1]	Total MT CO_2e
Notes: MT CO_2e = metric tons of carbon dioxide equivalent [1] Off-site emissions refer to emissions which are generated during off-site activities associated with on-site development, such as truck traffic, worker vehicle trips, and equipment transport to and from the project site. Off-site emissions presented here do not refer to development activities or improvements which occur off-site. Because of rounding, total MT CO_2e may be marginally different from CalEEMod output. Source: CalEEMod output (Appendix B).			

Table 3.8-4: Construction GHG Emissions–Phase 3

Construction Phase	On-site	Off-site[1]	Total MT CO_2e
2024			
Site Preparation + Grading + Building Construction	121.20	10.06	131.26
2025			
Building Construction + Paving + Architectural Coating	12.71	44.19	156.90
		Total Construction Emissions	**288.16**
		Amortized over 30 years	**9.61**
Notes: MT CO_2e = metric tons of carbon dioxide equivalents [1] Off-site emissions refer to emissions which are generated during off-site activities associated with on-site development, such as truck traffic, worker vehicle trips, and equipment transport to and from the project site. Off-site emissions presented here do not refer to development activities or improvements which occur off-site. Because of rounding, total MT CO_2e may be marginally different from CalEEMod output. Source: CalEEMod output (Appendix B).			

Operation

Operational or long-term emissions occur over the life of a development project. Sources of emissions may include motor vehicles and trucks, energy usage, water usage, waste generation, and area sources, such as landscaping activities and residential woodburning. As mentioned, for purposes of this analysis, project operation is assumed to begin in 2023 for Phase 1, 2024 for Phase 2 and 2025 for Phase 3.

Business As Usual Operational Emissions

Operational emissions under the BAU scenario were modeled using CalEEMod Version 2016.3.2. Modeling assumptions for the year 2005 were used to represent 2023, 2024, 2025 and 2030 BAU conditions (without incorporating the benefit of regulations adopted to reduce GHG emissions). The Valley Air District guidance recommends using emissions in 2002–2004 in the baseline scenario to represent conditions—as if regulations had not been adopted—to allow the effect of projected growth on achieving reduction targets to be clearly defined. CalEEMod defaults were used for project energy usage, water usage, waste generation, and area sources (architectural coating,

consumer products, and landscaping). The vehicle fleet mix in each model was revised to reflect the employee and truck fleet mixes for the respective buildout years.

2023, 2024, 2025, and 2030 Operational Emissions

Operational emissions were modeled for the years 2023, 2024, 2025 and 2030 using CalEEMod. CalEEMod assumes compliance with some, but not all, applicable rules and regulations regarding energy efficiency, vehicle fuel efficiency, renewable energy usage, and other GHG reduction policies, as described in the CalEEMod User's Guide.[36] The reductions obtained from each regulation and the source of the reduction amount used in the analysis are described below.

Emissions Accounting for Applicable Regulations

The following regulations are incorporated into the CalEEMod emission factors:

- Pavley I and Pavley II (LEV III) motor vehicle emission standards
- ARB Medium and Heavy-Duty Vehicle Regulation
- 2005, 2008, 2013, and 2016 Title 24 Energy Efficiency Standards

The following regulations have not been incorporated into the CalEEMod emission factors and require alternative methods to account for emission reductions provided by these regulations:

- Renewable Portfolio Standards
- Low Carbon Fuel Standard
- 2019 Title 24 Energy Efficiency Standards
- Green Building Code Standards (indoor water use)
- California Model Water Efficient Landscape Ordinance (Outdoor Water)

Pavley II/LEV III standards have been incorporated in the latest version of CalEEMod. The ARB estimates a 3 percent reduction in 2020 and a 19 percent reduction from the vehicle categories subject to the regulation by 2030.[37,38]

The ARB GHG Regulation for Medium and Heavy-Duty Engines and Vehicles applies to trucks that will be accessing the project site. The benefits of the regulation were incorporated into CalEEMod Version 2016.3.2. The ARB estimates that this regulation will reduce GHG emissions from the affected vehicles by 7.2 percent.[39]

[36] South Coast Air Quality Management District (South Coast AQMD). 2017. User's Guide for CalEEMod Version 2016.3.2. Website: http://www.aqmd.gov/caleemod/user's-guide. Accessed September 24, 2020.

[37] California Air Resources Board (ARB). 2010. Pavley 1 + Low Carbon Fuel Standard Postprocessor Version 1.0 User's Guide. Website: https://www.arb.ca.gov/cc/sb375/tools/pavleylcfsuserguide.pdf. Accessed February 5, 2020.

[38] California Air Resources Board (ARB). 2013. Clean Car Standards—Pavley, Assembly Bill 1493. Website: http://www.arb.ca.gov/cc/ccms/ccms.htm. Accessed February 2, 2021.

[39] California Air Resources Board (ARB). 2013. Initial Statement of Reasons for Proposed Rulemaking, Proposed GHG Regulations for Medium and Heavy-Duty Engines and Vehicles. Website: https://www.arb.ca.gov/regact/2013/hdghg2013/hdghg2013isor.pdf. Accessed February 2, 2021.

The LCFS is estimated to achieve a 10 percent reduction in emissions by 2020 and an 18 percent reduction by 2030. CalEEMod does not include credit for the LCFS, so the reduction is calculated off-model based on reductions required by the regulation.

Title 24 reductions for 2013 and 2016 updates are included in CalEEMod Version 2016.3.2. Compliance with 2019 Title 24 is expected to reduce nonresidential energy use by 30 percent beyond 2016 Title 24 standards.[40]

RPS is not accounted for in CalEEMod Version 2016.3.2. Reductions from RPS are addressed by revising the electricity emission intensity factor in CalEEMod to account for the utility RPS rate forecast for 2022 and 2030.[41] Pacific Gas and Electric Company (PG&E) provides emission factors for the electricity it provides to customers and projections for its energy portfolio for each year through 2030 that is used to estimate project emissions.[42]

Energy savings from water conservation resulting from the Green Building Code Standards for indoor water use and California MWELO for outdoor water use are not included in CalEEMod. The Water Conservation Act of 2009 mandates a 20 percent reduction in urban water use that is implemented with these regulations.[43] As such, the GHG emissions generated from electricity consumption associated with potential reductions in water use conservative do not account for compliance with the Water Conservation Act of 2009.

Reductions in emissions from solid waste are based on the City achieving the CalRecycle 75 Percent Initiative by 2020 compared with a 50 percent baseline for 2005.

Regulations applicable to project sources and the percent reduction anticipated from each source are shown in Table 3.8-5. The percentage reductions are only applied to the specific sources subject to the regulations. For example, the Pavley LEV Standards apply only to light duty cars and trucks.

Table 3.8-5: Summary of Applicable Greenhouse Gas Regulations

Regulation	Project Applicability
Pavley Low Emission Vehicle Standards	Nitrous oxide (laughing gas) is a colorless GHG. It has a lifetime of 114 years. Its global warming potential is 310.
Truck and Bus Regulation	Heavy-duty trucks accessing the site for deliveries and services are subject to the regulation.
Low Carbon Fuel Standard	Vehicles accessing the site would use fuel subject to the LCFS.

[40] California Energy Commission (CEC). 2018. 2019 Building Energy Efficiency Standards Frequently Asked Questions. Website: https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Building_Standards_FAQ_ada.pdf. Accessed July 20, 2021.

[41] California Public Utilities Commission. (CPUC). 2016. Renewable Portfolio Standard Quarterly Report. Website: https://www.cpuc.ca.gov/uploadedFiles/CPUC_Website/Content/Utilities_and_Industries/Energy/Reports_and_White_Papers/Q4_2016_RPS_Report_to_the_Legislature_FINAL.pdf. Accessed February 2, 2021.

[42] California Energy Commission (CEC). 2019. Review of Turlock Irrigation District's 2018-2030 Integrated Resource Plan. August. Website: https://www.energy.ca.gov/filebrowser/download/1905. Accessed September 30, 2020.

[43] California Department of Water Resources (DWR). 2013. California Water Plan Update 2013, Chapter 3 Urban Water Use Efficiency. Website: http://www.water.ca.gov/calendar/materials/vol3_urbanwue_apr_release_16033.pdf. No longer available on the DWR website.

Regulation	Project Applicability
Title 24 Energy Efficiency Standards	Project buildings would be required to be constructed to meet the latest version of Title 24 (currently 2019). Reduction applies only to energy consumption subject to the regulation.
Green Building Code Standards	The project would be required to include water conservation features mandated by the standard.
Water Efficient Land Use Ordinance	The project landscaping would be required to comply with the regulation.
Renewable Portfolio Standard	Electricity purchased for use at the project site is subject to the 33 percent RPS mandate.
Solid waste	The solid waste service provider would be required to provide programs to increase diversion and recycling to meet the 75 percent mandate, to which the project would be required to adhere.

In addition to rules and regulations, the project would obtain benefits from its location and infrastructure that would reduce project VMT compared with default values, as further detailed in Section 14, Transportation. The project would locate industrial uses close to major transportation corridors, for example.

Note that CalEEMod nominally labels the foregoing design elements and conditions as "mitigation measures," despite their inclusion in the project description as project design features. Therefore, reported operational emissions are considered to represent unmitigated project conditions despite the "mitigated" label applied by CalEEMod. Full assumptions and model outputs are provided in Appendix B and results of this analysis for the three phases are presented in Table 3.8-6, Table 3.8-7 and Table 3.8-8. A second set of analyses for 2030 is presented in Table 3.8-9 through Table 3.8-11.

Table 3.8-6: Project Operational Greenhouse Gases 2023–Phase 1

	Emissions (MT CO_2e per year)	
Source	Business as Usual	2023 (with reductions)
Area	0	-1
Energy	3,968	1,043
Mobile	10,844	8,132
Waste	874	861
Water	1,255	790
Amortized Construction Emissions	137	137
Total	**17,080**	**10,962**
Reduction from BAU		6,117
Percent Reduction		**49.7**

Source	Emissions (MT CO_2e per year)	
	Business as Usual	2023 (with reductions)
Significance Threshold		**29**
Are emissions significant?		**No**

Notes:
MT CO_2e = metric tons of carbon dioxide equivalent
The project achieves the Valley Air District 29 percent reduction from BAU threshold and the 21.7 percent required to show consistency with AB 32 targets.
Source of BAU emissions: CalEEMod output using 2005 modeling year to represent emissions in 2020 without regulations (Appendix B).
Source of 2023 emissions: CalEEMod output (Appendix B).

Table 3.8-7: Project Operational Greenhouse Gases 2024–Phase 2

Source	Emissions (MT CO_2e per year)	
	Business as Usual	2024 (with reductions)
Area	0	0
Energy	2,036	555
Mobile	5,953	4,424
Waste	484	484
Water	696	446
Amortized Construction Emissions	55	55
Total	**9,224**	**5,964**
Reduction from BAU		3,260
Percent Reduction		**48.7**
Significance Threshold		**29**
Are emissions significant?		**No**

Notes:
MT CO_2e = metric tons of carbon dioxide equivalent
The project achieves the Valley Air District 29 percent reduction from BAU threshold and the 21.7 percent required to show consistency with AB 32 targets.
Source of BAU emissions: CalEEMod output using 2005 modeling year to represent emissions in 2020 without regulations (Appendix B).
Source of 2024 emissions: CalEEMod output (Appendix B).

Table 3.8-8: Project Operational Greenhouse Gases 2025–Phase 3

Source	Emissions (MT CO_2e per year)	
	Business as Usual	2025 (with reductions)
Area	0	0
Energy	954	260

Source	Emissions (MT CO_2e per year)	
	Business as Usual	2025 (with reductions)
Mobile	2,206	1,635
Waste	227	227
Water	326	209
Amortized Construction Emissions	10	10
Total	**3,722**	**2,746**
Reduction from BAU		976
Percent Reduction		**31.6**
Significance Threshold		**29**
Are emissions significant?		**No**

Notes:
MT CO_2e = metric tons of carbon dioxide equivalent
The project achieves the Valley Air District 29 percent reduction from BAU threshold and the 21.7 percent required to show consistency with AB 32 targets.
Source of BAU emissions: CalEEMod output using 2005 modeling year to represent emissions in 2020 without regulations (Appendix B).
Source of 2025 emissions: CalEEMod output (Appendix B).

As shown in Tables 3.8-6 through 3.8-8, Phase 1 would achieve a reduction of 49.7 percent from BAU by the year 2023 with regulations and design features incorporated, Phase 2 would achieve a 48.7 percent reduction by 2024, and Phase 3 would achieve a 31.6 percent reduction by 2025. Each phase would achieve more than the 29 percent reduction required by the Valley Air District threshold, and also more than the 21.7 percent average reduction from all sources of GHG emissions now required to achieve AB 32 targets. As explained above, the ARB originally identified a reduction of 29 percent from BAU as needed to achieve AB 32 targets. The 2008 recession and slower growth in the years since 2008 have reduced the growth forecasted for 2020, and the amount needed to be reduced to achieve 1990 levels as required by AB 32. The California Department of Finance population forecast for 2020 to 2030 predicts growth in the State of 8.1 percent by the 2030 target year or 0.8 percent per year.[44]

The percent reductions from BAU for the three phases are all well beyond the average 29 percent reduction required by the State from all sources to achieve the AB 32 2020 target and therefore addresses the concern expressed in the *Newhall Ranch* decision that projects should likely do more than the average to ensure they are providing a fair share of emission reductions. As previously mentioned, the emission reductions achieved by the proposed project would primarily come from improved building energy efficiency, increasing transportation fuel content standards, and increasing vehicle fuel efficiency standards when compared with a 2005 BAU scenario.

[44] State of California, Department of Finance. 2017. E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011-2020 with 2010 Census Benchmark. May. Website: http://dof.ca.gov/Forecasting/Demographics/Estimates/E-5/. Accessed September 25, 2020.

As previously discussed, this analysis also addresses consistency with the SB 32 targets and the 2017 Scoping Plan Update with an assessment of the project's reduction from BAU levels based on emissions in 2030 compared with the 21.7 percent reduction. The Valley Air District's *Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA* includes thresholds based on whether the project will reduce or mitigate GHG levels by 29 percent from BAU levels compared with 2005 levels.[45] Therefore, because the project buildout would occur after 2020, operational emissions from the project beginning in 2030 are summarized in Table 3.8-9 through Table 3.8-11 and compared with the applicable Valley Air District's threshold of a 29 percent reduction from BAU emission levels.

Table 3.8-9: Project Operational Greenhouse Gases 2030–Phase 1

	Emissions (MT CO_2e per year)	
Source	**Business as Usual**	**2030 (with reductions)**
Area	0	0
Energy	3,968	985
Mobile	10,844	6,817
Waste	874	874
Water	1,255	774
Amortized Construction Emissions	137	137
Total	**17,080**	**9,587**
Reduction from BAU		7,492
Percent Reduction		**43.9**
Significance Threshold		**29**
Are emissions significant?		**No**

Notes:
MT CO_2e = metric tons of carbon dioxide equivalent
The proposed project more than achieves the Valley Air District 29 percent reduction from BAU threshold and the 21.7 percent required to show consistency with AB 32 targets.
Source of BAU emissions: CalEEMod output using 2005 modeling year to represent emissions in 2030 without regulations (Appendix B).
Source of 2030 emissions: CalEEMod output (Appendix B).

[45] San Joaquin Valley Air Pollution Control District (Valley Air District) 2009. "Final Staff Report, Addressing Greenhouse Gas Emissions Impacts under the California Environmental Quality Act." December 2009. Website: https://www.valleyair.org/Programs/CCAP/12-17-09/1%20CCAP%20-%20FINAL%20CEQA%20GHG%20Staff%20Report%20-%20Dec%2017%202009.pdf. Accessed January 29, 2021.

Table 3.8-10: Project Operational Greenhouse Gases 2030–Phase 2

Source	Emissions (MT CO_2e per year)	
	Business as Usual	2030 (with reductions)
Area	0	0
Energy	2,036	516
Mobile	5,953	3,742
Waste	484	484
Water	696	431
Amortized Construction Emissions	55	55
Total	**9,224**	**5,228**
Reduction from BAU		3,996
Percent Reduction		**43.3**
Significance Threshold		**29**
Are emissions significant?		**No**

Notes:
MT CO_2e = metric tons of carbon dioxide equivalent
The project exceeds the Valley Air District 29 percent reduction from BAU threshold and the 21.7 percent required to show consistency with AB 32 targets.
Source of BAU emissions: CalEEMod output using 2005 modeling year to represent emissions in 2030 without regulations (Appendix B).
Source of 2030 emissions: CalEEMod output (Appendix B).

Table 3.8-11: Project Operational Greenhouse Gases 2030–Phase 3

Source	Emissions (MT CO_2e per year)	
	Business as Usual	2030 (with reductions)
Area	0	0
Energy	954	242
Mobile	2,206	1,404
Waste	227	227
Water	326	202
Amortized Construction Emissions	10	10
Total	**3,722**	**2,084**
Reduction from BAU		1,638
Percent Reduction		**44.0**
Significance Threshold		**29**
Are emissions significant?		**No**

Source	Emissions (MT CO_2e per year)	
	Business as Usual	2030 (with reductions)
Notes: MT CO_2e = metric tons of carbon dioxide equivalent The project exceeds the Valley Air District 29 percent reduction from BAU threshold and the 21.7 percent required to show consistency with AB 32 targets. Source of BAU emissions: CalEEMod output using 2005 modeling year to represent emissions in 2030 without regulations (Appendix B). Source of 2030 emissions: CalEEMod output (Appendix B).		

As shown in Table 3.8-9 through 3.8-11, Phase 1 would achieve a reduction of 43.9 percent from BAU by the year 2030 with regulations and design features incorporated, Phase 2 would achieve a 43.3-percent reduction by 2030, and Phase 3 would achieve a 44 percent reduction by 2030. No new threshold has been adopted by the City of Tracy for the 2030 target, so in the interim the project must make continued progress toward the 2030 goal.

In conclusion, each of the project phases would achieve reductions beyond the ARB 2020 21.7 percent target and the Valley Air District 29 percent reduction from BAU requirements from adopted regulations in their respective operational years. No new threshold has been adopted by the City for the SB 32 2030 target; however, the emission estimates presented in Table 3.8-9 through 3.8-11 demonstrate that the project would achieve greater reductions than the Valley Air District-established threshold of 29 percent, resulting in annual reductions ranging from 43.3 to 44 percent. Based on this progress and the 2017 Scoping Plan Update, it is reasonable to conclude that the project is consistent with the 2017 Scoping Plan and would make a reasonable fair share contribution to achieving the 2030 target. The fair share may very well be achieved through compliance with increasingly stringent State regulations that apply to new development, such as Title 24 and CALGreen; regulations on energy production, fuels, and motor vehicles that apply to both new and existing development; and voluntary actions to improve energy efficiency in existing development. In addition, compliance with the VMT targets, to the extent feasible, adopted to comply with SB 375 and implemented through the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) and updated VMT guidelines adopted by the Governor's Office of Planning and Research (OPR) and implemented by the City (see Section 14, Transportation) may be considered to adequately address GHG emissions from passenger cars and light duty trucks. Additionally, the State strategy relies on the Cap-and-Trade Program to make up any shortfalls that may occur from the other regulatory strategies. The costs of Cap-and-Trade emission reductions will ultimately be passed on to the consumers of fuels, electricity and products produced by regulated industries which include future residents of development projects and other purchasers of products and services. Given the above information and that the proposed project would not exceed Valley Air District-established GHG significance thresholds, this impact would be less than significant.

Level of Significance

Less Than Significant Impact

Conflict with Plan, Policy, or Regulation that Reduces Emissions

Impact GHG-2: The proposed project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

The following analysis assesses the project's compliance with Consideration No. 3 regarding consistency with adopted plans to reduce GHG emissions. The City of Tracy has not adopted a GHG Reduction Plan. In addition, the City has not completed the GHG inventory, benchmarking, or goal-setting process required to identify a reduction target and take advantage of the streamlining provisions contained in the CEQA Guidelines amendments adopted for SB 97 and clarifications provided in the CEQA Guidelines amendments adopted on December 28, 2018. The Valley Air District has adopted a Climate Action Plan, but it does not contain measures that are applicable to individual development projects such as the proposed project. Therefore, the Valley Air District CCAP cannot be applied to the project for purposes of streamlining under CEQA. Since no other local or regional Climate Action Plan is in place, the project is assessed for its consistency with ARB's adopted Scoping Plans. This would be achieved with an assessment of the project's compliance with relevant Scoping Plan measures contained in the 2008 Scoping Plan and the 2017 Scoping Plan Update.

Consistency with California's Post-2020 Targets

As discussed above, the State's executive branch adopted several Executive Orders related to GHG emissions. Executive Orders S-3-05 and B-30-15 are two examples. Executive Order S-3-05 sets goals to reduce emissions to 1990 levels by 2020 and 80 percent below 1990 levels by 2050. The goal of Executive Order S-3-05 to reduce GHG emissions to 1990 levels by 2020 was codified by AB 32. The proposed project, for the reasons analyzed above, is consistent with AB 32. Therefore, the proposed project does not conflict with this component of Executive Order S-3-05. Executive Order B-30-15 establishes an interim goal to reduce GHG emissions to 40 percent below 1990 levels by 2030.

The 2030 goal was codified under SB 32 and is now addressed by the 2017 Scoping Plan Update. The new plan provides a strategy that is capable of reaching the SB 32 target if the measures included in the plan are implemented and achieve reductions within the ranges expected. Under the Scoping Plan Update, local government plays a supporting role through its land use authority and control over local transportation infrastructure. The 2017 Scoping Plan Update includes reductions from implementation of SB 375 that applies to VMT from passenger vehicles. San Joaquin County targets for SB 375 are a 12 percent per capita reduction by 2020 and a 16 percent per capita reduction by 2035 relative to 2005 levels. SB 375 is implemented with the San Joaquin Council of Governments (San Joaquin COG) RTP/SCS. The RTP/SCS envisions an increase in development density that would encourage fewer and shorter trips and more trips by transit, walking, and bicycling in amounts sufficient to achieve the SB 375 targets.

Now that the 2017 Scoping Plan has been adopted, new methodologies and threshold approaches are required to determine the fair-share contributions City development projects would need to make to achieve the 2030 target. In the meantime, however, the discussion under "Consistency with SB 32" below addresses the consistency of the proposed project with SB 32, which provides the statutory underpinning of the 2017 Scoping Plan. The SB 32 target requires GHG emissions to be

reduced from 1990 levels. No consensus has been reached around the State on a new quantitative target for new development based on consistency with the SB 32 targets.

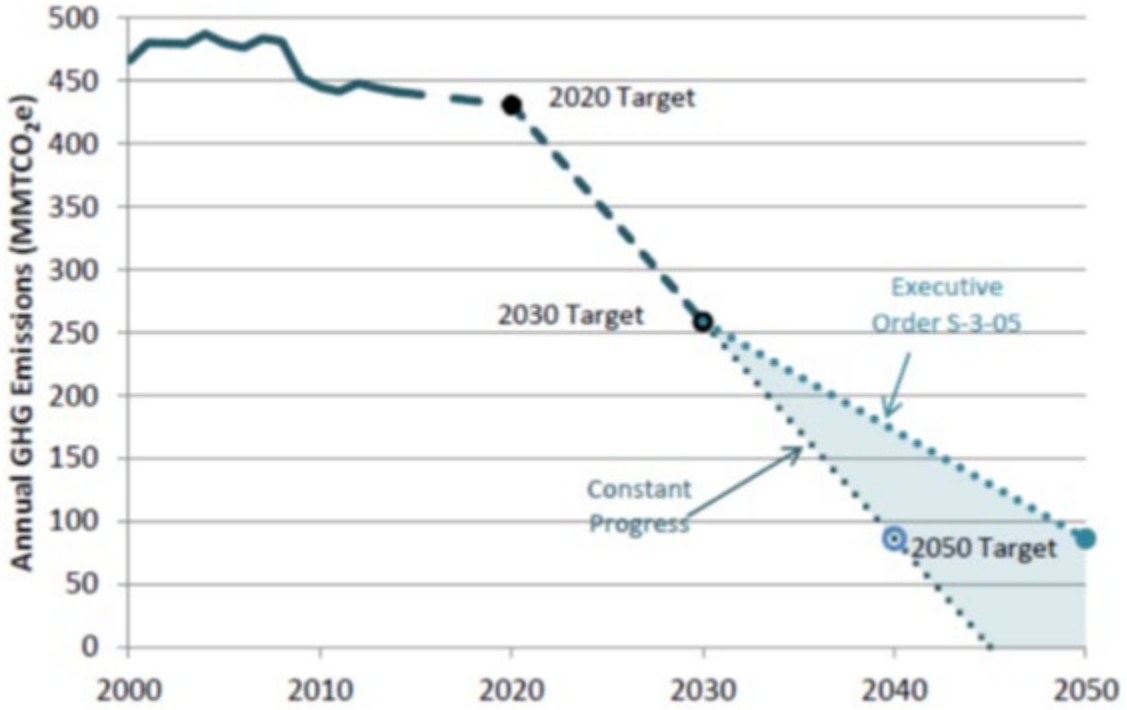
The Executive Order S-3-05 2050 target has not been codified by legislation. However, studies have shown that, in order to meet the 2050 target, aggressive pursuit of technologies in the transportation and energy sectors, including electrification and the decarbonization of fuel, will be required. Because of the technological shifts required and the unknown parameters of the regulatory framework in 2050, quantitatively analyzing the project's impacts further relative to the 2050 goal is speculative for purposes of CEQA.[46]

The ARB recognizes that AB 32 establishes an emissions reduction trajectory that will allow California to achieve the more stringent 2050 target: "These [greenhouse gas emission reduction] measures also put the State on a path to meet the long-term 2050 goal of reducing California's GHG emissions to 80 percent below 1990 levels. This trajectory is consistent with the reductions that are needed globally to stabilize the climate." In addition, the ARB's First Update "lays the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050," and many of the emission reduction strategies recommended by the ARB would serve to reduce the proposed project's post-2020 emissions level to the extent applicable by law:

- **Energy Sector**: Continued improvements in California's appliance and building energy efficiency programs and initiatives, such as the State's zero net energy building goals, would serve to reduce the proposed project's emissions level. Additionally, further additions to California's renewable resource portfolio would favorably influence the project's emissions level.
- **Transportation Sector**: Anticipated deployment of improved vehicle efficiency, zero-emission technologies, lower carbon fuels, and improvement of existing transportation systems all will serve to reduce the project's emissions level.
- **Water Sector**: The project's emissions level will be reduced as a result of further desired enhancements to water conservation technologies.
- **Waste Management Sector**: Plans to further improve recycling, reuse and reduction of solid waste will beneficially reduce the project's emissions level.

For the reasons described above, the project's post-2020 emissions trajectory is expected to follow a declining trend, consistent with the 2030 and 2050 targets. The trajectory required to achieve the post-2020 targets is shown in Figure 3.8-4.

[46] California Air Resources Board (ARB). 2014. First Update to the Climate Change Scoping Plan. Website: http://www.arb.ca.gov/cc/scopingplan/document/updatedscopingplan2013.htm. Accessed February 5, 2020.



Source: California Air Resources Board (ARB). 2017. The 2017 Climate Change Scoping Plan Update. January 20. Website: https://www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf. Accessed February 2, 2021.

Figure 3.8-4: California's Path to Achieving the 2050 Target

In his January 2015 inaugural address, Governor Brown expressed a commitment to achieve "three ambitious goals" that he would like to see accomplished by 2030 to reduce the State's GHG emissions:

- Increasing the State's Renewable Portfolio Standard from 33 percent in 2020 to 50 percent in 2030;
- Cutting the petroleum use in cars and trucks in half; and
- Doubling the efficiency of existing buildings and making heating fuels cleaner.

These expressions of executive branch policy may be manifested in adopted legislative or regulatory action through the State agencies and departments responsible for achieving the State's environmental policy objectives, particularly those relating to global climate change.[47]

Further, recent studies show that the State's existing and proposed regulatory framework will allow the State to reduce its GHG emissions level to 40 percent below 1990 levels by 2030, and to 80 percent below 1990 levels by 2050. Even though these studies did not provide an exact regulatory and technological roadmap to achieve the 2030 and 2050 goals, they demonstrated that various combinations of policies could allow the Statewide emissions level to remain very low through 2050, suggesting that the combination of new technologies and other regulations not analyzed in the studies could allow the State to meet the 2050 target.[48]

[47] Brown, Edmund G. Jr. 2015. Press Release: California Establishes Most Ambitious Greenhouse Gas Goal in North America. April 29. Website: https://www.gov.ca.gov/news.php?id=18938. Accessed February 2, 2021.

[48] Energy and Environmental Economics. 2015. Pathways to Deep Decarbonization in the United States. Website:

Given the proportional contribution of mobile source-related GHG emissions to the State's inventory, recent studies also show that relatively new trends—such as the increasing importance of web-based shopping, the emergence of different driving patterns, and the increasing effect of web-based applications on transportation choices—are beginning to substantially influence transportation choices and the energy used by transportation modes. These factors have changed the direction of transportation trends in recent years and will require the creation of new models to effectively analyze future transportation patterns and the corresponding effect on GHG emissions. For the reasons described above, the proposed project's post-2020 emissions trajectory is expected to follow a declining trend, consistent with the 2030 and 2050 targets.

Consistency with SB 32

As explained above, the 2017 Scoping Plan Update includes the strategy that the State intends to pursue to achieve the 2030 targets of Executive Order S-3-05 and SB 32. The 2017 Scoping Plan includes the following summary of its overall strategy for reaching the 2030 target:

- SB 350
  - Achieve 50 percent Renewables Portfolio Standard by 2030.
  - Doubling of energy efficiency savings by 2030.
- Low Carbon Fuel Standard
  - Increased stringency (reducing carbon intensity 18 percent by 2030, up from 10 percent in 2020).
- Mobile Source Strategy (Cleaner Technology and Fuels Scenario)
  - Maintaining existing GHG standards for light- and heavy-duty vehicles.
  - Put 4.2 million zero-emission vehicles (ZEVs) on the roads.
  - Increase ZEV buses, delivery, and other trucks.
- Sustainable Freight Action Plan
  - Improve freight system efficiency.
  - Maximize use of near Zero-Emission Vehicles and equipment powered by renewable energy.
  - Deploy over 100,000 zero-emission trucks and equipment by 2030.
- Short-Lived Climate Pollutant (SLCP) Reduction Strategy
  - Reduce emissions of methane and hydrofluorocarbons 40 percent below 2013 levels by 2030.
  - Reduce emissions of black carbon 50 percent below 2013 levels by 2030.
- SB 375 Sustainable Communities Strategies
  - Increased stringency of 2035 targets.
- Post-2020 Cap-and-Trade Program
  - Declining caps, continued linkage with Québec, and linkage to Ontario, Canada.
  - The ARB will look for opportunities to strengthen the program to support more air quality co-benefits, including specific program design elements. In fall 2016, ARB staff described potential future amendments including reducing the offset usage limit, redesigning the

http://deepdecarbonization.org/wp-content/uploads/2015/11/US_Deep_Decarbonization_Technical_Report_Exec_Summary.pdf. Accessed February 2, 2021.

allocation strategy to reduce free allocation to support increased technology and energy investment at covered entities and reducing allocation if the covered entity increases criteria or toxics emissions over some baseline.

- By 2018, develop Integrated Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

Table 3.8-12 provides an analysis of the project's consistency with the 2017 Scoping Plan Update measures.

Table 3.8-12: Consistency with SB 32 2017 Scoping Plan Update

Scoping Plan Measure	Project Consistency
SB 350 50 percent Renewable Mandate. Utilities subject to the legislation will be required to increase their renewable energy mix from 33 percent in 2020 to 50 percent in 2030.	Not applicable. This measure would apply to utilities and not to individual development projects. The proposed project would purchase electricity from a utility subject to the SB 350 Renewable Mandate and the RPS requirements. SB 100 has increased the 2030 RPS standards to 60 percent by 2030, superseding the increase required by SB 350.
SB 350 Double Building Energy Efficiency by 2030. This is equivalent to a 20 percent reduction from 2014 building energy usage compared to current projected 2030 levels.	**Not applicable**. This measure applies to existing buildings. The proposed project would not utilize existing buildings. New structures would be required to comply with Title 24 Energy Efficiency Standards that are expected to increase in stringency over time. The proposed project would be required to comply with the applicable Title 24 Energy Efficiency Standards in effect at the time building permits are received.
Low Carbon Fuel Standard. This measure requires fuel providers to meet an 18 percent reduction in carbon content by 2030.	**Not applicable.** This is a Statewide measure that cannot be implemented by a project applicant or lead agency. However, vehicles accessing the project site would be required to adhere to these standards.
Mobile Source Strategy (Cleaner Technology and Fuels Scenario). Vehicle manufacturers will be required to meet existing regulations mandated by the LEV III and Heavy-Duty Vehicle programs. The strategy includes a goal of having 4.2 million ZEVs on the road by 2030 and increasing numbers of ZEV trucks and buses.	**Consistent**. The proposed project is industrial in nature and would support truck and freight operations. It is expected that deliveries throughout the State would be made with an increasing number of ZEV delivery trucks, including trips that would be coming to and from the project site.
Sustainable Freight Action Plan. The plan's target is to improve freight system efficiency 25 percent by increasing the value of goods and services produced from the freight sector, relative to the amount of carbon that it produces by 2030. This would be achieved by deploying over 100,000 freight vehicles and equipment capable of zero-emission operation and maximize near zero-emission freight vehicles and equipment powered by renewable energy by 2030.	**Consistent.** This measure applies to owners and operators of trucks and freight operations. The proposed project is industrial in nature and would support truck and freight operations that would benefit from this efficiency increase.

Scoping Plan Measure	Project Consistency
Short-Lived Climate Pollutant (SLCP) Reduction Strategy. The strategy requires the reduction of SLCPs by 40 percent from 2013 levels by 2030 and the reduction of black carbon by 50 percent from 2013 levels by 2030.	**Consistent.** The proposed project would not include major sources of black carbon. This measure revolves around ARB's SLCP Reduction Strategy that was released in April 2016 as a result of SB 650. SB 650 required the State to develop a strategy to reduce emissions of SLCPs. Diesel particulate matter (DPM) reductions have come from strong efforts to reduce on-road vehicle emissions. Car and truck engines used to be the largest sources of anthropogenic black carbon emissions in California, but the State's existing air quality policies will virtually eliminate black carbon emissions from on-road diesel engines within 10 years. These policies are based on existing technologies.
SB 375 Sustainable Communities Strategies. Requires Regional Transportation Plans to include a sustainable communities strategy for reduction of per capita vehicle miles traveled.	**Not applicable.** The proposed project does not include the development of a Regional Transportation Plan.
Post-2020 Cap-and-Trade Program. The Post 2020 Cap-and-Trade Program continues the existing program for another 10 years. The Cap-and-Trade Program applies to large industrial sources such as power plants, refineries, and cement manufacturers.	**Not applicable.** The proposed project is not one targeted by the cap-and-trade system regulations, and therefore, this measure does not apply to the project. However, the post-2020 Cap-and-Trade Program indirectly affects people and entities who use the products and services produced by the regulated industrial sources when increased cost of products or services (such as electricity and fuel) are transferred to the consumers.
Natural and Working Lands Action Plan. The ARB is working in coordination with several other agencies at the federal, State, and local levels, stakeholders, and with the public, to develop measures as outlined in the Scoping Plan Update and the governor's Executive Order B-30-15 to reduce GHG emissions and to cultivate net carbon sequestration potential for California's natural and working land.	**Not Applicable.** The majority of the project site consists of active farmland producing row crops. However, the project site is designated as Industrial (I) by the City of Tracy General Plan.
Source: California Air Resources Board (ARB). 2017. The 2017 Climate Change Scoping Plan Update. January 20. Website: https://www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf. Accessed February 2, 2021.	

Regarding goals for 2050 under Executive Order S-3-05, at this time it is not possible to quantify the emissions savings from future regulatory measures, as they have not yet been developed; nevertheless, it can be anticipated that operation of the project would be required to comply with whatever measures are enacted that State lawmakers decide would lead to an 80 percent reduction below 1990 levels by 2050. In its 2008 Scoping Plan, the ARB acknowledged that the "measures needed to meet the 2050 are too far in the future to define in detail." In the First Scoping Plan Update; however, the ARB generally described the type of activities required to achieve the 2050 target: "energy demand reduction through efficiency and activity changes; large scale electrification

of on-road vehicles, buildings, and industrial machinery; decarbonizing electricity and fuel supplies; and rapid market penetration of efficiency and clean energy technologies that requires significant efforts to deploy and scale markets for the cleanest technologies immediately." The 2017 Scoping Plan Update provides an intermediate target that is intended to achieve reasonable progress toward the 2050 target.

Accordingly, taking into account the proposed project's emissions, and the progress being made by the State toward reducing emissions in key sectors such as transportation, industry, and electricity, the project would be consistent with State GHG Plans and would further the State's goals of reducing GHG emissions 40 percent below 1990 levels by 2030, and 80 percent below 1990 levels by 2050, and does not obstruct their attainment.

Level of Significance

Less Than Significant Impact

3.8.5 - Cumulative Impacts

GHG emissions and global climate change inherently represent cumulative impacts. GHG emissions cumulatively contribute to the significant adverse environmental impacts of global climate change. No single project could generate enough GHG emissions to noticeably change the global average temperature; instead, the GHG emissions from past, present, and reasonably foreseeable future projects and activities have contributed to and would contribute to global climate change and its associated environmental impacts. According to the Valley Air District, project GHG emissions are inherently cumulative and do not require the estimation of cumulative projects in the region of the project. Thus, the determination of GHG cumulative impacts is based on the State target established by AB 32 to reduce GHG emissions to 1990 levels by 2020. In order to ensure that this goal would be achieved, as discussed above in detail, Air Districts and Lead Agencies developed GHG thresholds to ensure compliance with the State target. Projects with GHG emissions in conformance with these thresholds, therefore, would not be considered significant for purposes of CEQA. In addition, although the emissions from such cumulative projects would add an incremental amount to the overall GHG emissions that cause global climate change impacts, emissions from projects consistent with these thresholds would not be a "cumulatively considerable" contribution under CEQA. Such projects would not be "cumulatively considerable," because they would be helping to solve the cumulative problem as a part of the AB 32 process. Given that it has been determined the proposed project would be consistent with the applicable thresholds as evaluated above in detail, the project would result in a less than significant cumulative impact related to generation of GHG emissions.

Level of Cumulative Significance

Less Than Significant Impact

3.9 - Hazards and Hazardous Materials

3.9.1 - Introduction

This section describes the existing hazards and hazardous materials conditions on the project site and vicinity area as well as the relevant regulatory framework. This section also evaluates the potential impacts related to hazards and hazardous materials that could result from implementation of the proposed project. Information included in this section is based, in part, on the Phase I Environmental Site Assessment (Phase I ESA) and the Limited Site Investigation prepared for the Tracy Alliance parcels, as well as the Phase I ESA prepared for the Zuriakat and Suvik Farms parcels, all included as Appendix G. The following comments were received during the Notice of Preparation (NOP) scoping period related to hazards and hazardous materials:

- The Environmental Impact Report (EIR) should acknowledge the potential for historic or future activities on or near the project site that could result in the release of hazardous wastes/substances on the project site. The EIR should also identify the mechanism(s) to initiate any required investigation or remediation and the government agency who will be responsible for providing appropriate regulatory oversight.
- Because of the potential for Aerially Deposited Lead (ADL), the California Department of Substance Control (DTSC) recommends collecting soils samples for lead analysis prior to construction.
- The DTSC recommends that any project sites with current and/or former mining operations on-site or in the project site area should be evaluated for mine waste.
- If buildings or other structures are to be demolished as part of the proposed project, surveys should be conducted for the presence of lead-based paint (LBP) or products, mercury, asbestos containing materials, and polychlorinated biphenyl caulk. Removal, demolition and disposal of any of the above-mentioned chemicals should be conducted in compliance with California environmental regulations and policies. In addition, sampling near current and/or former buildings should be conducted.
- If the proposed project requires the import of soil to backfill any excavated areas, proper sampling should be conducted to ensure that the imported soil is free of contamination.
- If any sites included as part of the proposed project have been used for agricultural, weed abatement or related activities, proper investigation for organochlorinated pesticides should be discussed in the EIR.

3.9.2 - Environmental Setting

Fundamentals

Hazards

This description of existing conditions focuses on hazards from fire and overhead power lines, as well as hazardous materials and wastes. A hazard is a situation that poses a level of threat to life, health, property, or the environment. Hazards can be dormant or potential, with only a theoretical risk of

harm. However, once a hazard becomes active, it can create an emergency. A hazardous situation that has already occurred is called an incident. Emergency response is action taken in response to an unexpected and dangerous occurrence to mitigate its impact on people, structures, or the environment. Emergency situations can range from natural disasters to problems with hazardous materials and transportation incidents.

Hazardous Materials and Wastes

Hazardous materials include but are not limited to hazardous materials, hazardous substances, and hazardous wastes, as defined in Section 25501 and Section 25117, respectively, of the California Health and Safety Code. A hazardous material is any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released; and any material that a handler or an administering regulatory agency under Health and Safety Code Section 25501 has a reasonable basis for believing would be injurious to the health and safety of persons or harmful to the environment. Various properties of a substance may cause that substance to be considered hazardous, including:

- Toxicity—causes human health effects;
- Ignitability—has the ability to burn;
- Corrosivity—causes severe burns or damage to materials; and
- Reactivity—causes explosions or generates toxic gases.

Hazardous Building Materials

Many older buildings contain building materials consisting of hazardous materials. These materials include LBP, asbestos-containing material (ACM), and polychlorinated biphenyls (PCBs).

Prior to the United States Environmental Protection Agency (EPA) ban in 1978, LBP was commonly used on interior and exterior surfaces of buildings. Disturbances such as sanding and scraping activities, renovation work, gradual wear and tear, old peeling paint, and paint dust particulates have been found to contaminate surface soils or cause lead dust to migrate and affect indoor air quality. Exposure to residual lead can cause severe health effects, especially in children.

Asbestos is a naturally occurring fibrous material that was extensively used as a fireproofing and insulating agent in building construction materials before such uses were banned by the EPA in the 1970s. In addition, many types of electrical equipment contained PCBs as an insulator, including transformers and capacitors. After PCBs were determined to be a carcinogen in the mid to late 1970s, the EPA banned PCB use in new equipment and began a program to phase out certain existing PCB-containing equipment. For example, fluorescent lighting ballasts manufactured after January 1, 1978, do not contain PCBs and are required to have a label clearly stating that PCBs are not present in the unit.

Hazardous Substances

A hazardous substance can be any biological, natural, or chemical substance, whether solid, liquid, or gas, that may cause harm to human health. Hazardous substances are classified based on their potential health effects, whether acute (immediate) or chronic (long-term). Dangerous goods are classified based on immediate physical or chemical effects, such as fire, explosion, corrosion, and

poisoning. An accident involving dangerous goods could seriously harm human health or damage property or the environment. Harm to human health may happen suddenly (acute), such as dizziness, nausea, and itchy eyes or skin; or it may happen gradually over years (chronic), such as dermatitis or cancer. Some people can be more susceptible than others. Hazardous substances and dangerous goods can include antiseptic used for a cut, paint for walls, a cleaning product for the bathroom, chlorine in a pool, carbon monoxide from a motor vehicle, fumes from welding, vapors from adhesives, or dust from cement, stone, or rubber operations. Such hazardous substances can make humans very sick if they are not used properly.

Hazardous Wastes

Hazardous waste is any hazardous material that is to be discarded, abandoned, or recycled. The criteria that define a material as hazardous also define a waste as hazardous. Specifically, materials and waste may be considered hazardous if they are poisonous (toxic); can be ignited by open flame (ignitable); corrode other materials (corrosive); or react violently, explode, or generate vapors when mixed with water (reactive). Soil or groundwater contaminated with hazardous materials above specified regulatory State or federal thresholds is considered hazardous waste if it is removed from a site for disposal. If handled, disposed, or otherwise treated improperly, hazardous materials and hazardous waste can result in public health hazards if released into the soil or groundwater or through airborne releases in vapors, fumes, or dust. Soil and groundwater having concentrations of hazardous constituents higher than specific regulatory levels must be handled and disposed of as hazardous waste when excavated or pumped from an aquifer. The California Code of Regulations, Title 22, Sections 66261.20–24 contains technical descriptions of toxic characteristics that could cause soil or groundwater to be classified as hazardous waste.

Hazardous Materials Listing

The Cortese List is a list of known hazardous materials or hazardous waste facilities that meet one or more of the provisions of Government Code Section 65962.5, including:

- The list of hazardous waste and substances sites from the DTSC EnviroStor database.[1]
- The list of Leaking Underground Storage Tank (LUST) sites by county and fiscal year from the California State Water Resources Control Board (State Water Board) GeoTracker database.[2]
- The list of solid waste disposal sites identified by the State Water Board with waste constituents exceeding hazardous waste levels outside the waste management unit.[3]
- The list of active cease-and-desist orders and cleanup and abatement orders from the State Water Board.[4]

[1] California Department of Toxic Substances Control (DTSC). "Cortese" list of DTSC's EnviroStor database list of Hazardous Waste and Substances sites. DTSC's Hazardous Waste and Substances Site List—Site Cleanup (Cortese List). Website: https://www.envirostor.dtsc.ca.gov/public/. Accessed October 27, 2020.

[2] California State Water Resources Control Board (State Water Board). GeoTracker Database Map. Website: https://geotracker.waterboards.ca.gov/map/. Accessed October 27, 2020.

[3] California Environmental Protection Agency (Cal/EPA). 2020. Site Portal. Website: https://siteportal.calepa.ca.gov/nsite/map/results. Accessed October 27, 2020.

[4] Ibid.

- The list of hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code, as identified by the DTSC.[5]

Existing Fire Related Conditions and Presence of Hazardous Materials

The hazards in the City of Tracy and its Sphere of Influence (SOI), including the project site, discussed in this section are related primarily to fire hazards and hazardous materials. Fire hazards and hazards from hazardous materials are typically site-specific, so existing conditions related to fire hazards and the transport, use, and disposal of hazardous materials are discussed below under "project site."

Fire hazards present a considerable problem to vegetation and wildlife habitats throughout the City of Tracy and its SOI. Grassland fires are easily ignited, particularly in dry seasons. These fires are relatively easily controlled if they can be reached by fire equipment; the burned slopes, however, are highly subject to erosion and gullying. While brushlands are naturally adapted to frequent light fires, fire protection in recent decades has resulted in heavy fuel accumulation on the ground. Wildfire is a serious hazard in outlying residential parcels and open lands adjacent to residential areas.[6]

City of Tracy

The City of Tracy contains extensive heavy industrial development that may be associated with hazardous materials uses within the Northeast Industrial (NEI) Specific Plan area that may be associated with hazardous materials uses. Heavy industrial uses present potential risks to public safety because of materials or machinery that may result in an explosion or the release of hazardous substances, should an accident occur. In addition, natural gas wells are located throughout the NEI Specific Plan area.[7] No particular routes for hazardous materials transportation are designated in the City;[8] however, the California Highway Patrol designates through-routes to be used for the transportation of hazardous materials. Hazardous materials such as asbestos and lead are also likely present in building materials and paints in older structures.

The Tracy Fire Department provides fire protection and emergency medical services to 160 square miles and over 100,000 people, encompassing the City as well as all surrounding rural areas from the Stanislaus County line to the Alameda County line.[9] The City created a new Joint Exercise of Powers Agreement between the Tracy Fire Department and the Tracy Rural Fire Protection District forming the South San Joaquin County Fire Authority (South County Fire) in 2018. Emergency response in the City of Tracy and for the project site is coordinated by the Tracy Fire Department and South County Fire, with South County Fire providing response services to hazardous materials incidents, as well as fire protection and emergency medical services, as discussed further in Section 3.13, Public Services.

[5] California Environmental Protection Agency (Cal/EPA). "Cortese" list of sites subject to Corrective Action pursuant to Health and Safety Code 25187.5. Website: https://www.calepa.ca.gov/sitecleanup/corteselist/section-65962-5a/. Accessed October 27, 2020.
[6] Design, Community, and Environment. 2011. City of Tracy General Plan (prepared for City of Tracy). Page 8-16.
[7] Pacific Municipal Consultants.1996. Draft Environmental Impact Report Northeast Industrial Concept Development Plan (prepared for City of Tracy). Page 4-10.
[8] Design, Community, and Environment. 2011. City of Tracy General Plan (prepared for City of Tracy).
[9] South San Joaquin County Fire Authority (South County Fire). No date. History. Website: http://southcountyfa.org/history.html. Accessed May 11, 2020.

The South County Fire Community Risk Reduction Division is responsible for planning, outreach, and training for disaster management and emergency preparedness.[10]

The City of Tracy contains mostly urban uses with little open space or foothill areas susceptible to wildfire hazards. The southwestern most areas within the City's SOI contain some "Moderate" fire hazard zones.[11] According to the California Department of Forestry and Fire Protection (CAL FIRE) there are no High or Very High Fire Hazard Severity Zones in San Joaquin County, and therefore none in the City of Tracy; according to the California Public Utilities Commission (CPUC), there are no Tier 2-Elevated Zones or Tier 3-Extreme Zones within the City of Tracy.[12]

Project Site

The project site is currently used for agricultural purposes. Several documents were prepared to evaluate the site for the potential presence of hazardous materials, including organochlorinated pesticides and other chemicals commonly associated with agricultural operations, as summarized below.

A Phase I ESA and a subsequent Limited Site Investigation were completed for the Tracy Alliance parcels by Terracon Consultants, Inc. (Terracon) dated December 21, 2018,[13] and May 10, 2019,[14] respectively. A Phase I ESA was completed by Environmental Assessment Specialists, Inc. (EAS) on June 12, 2020, for the Zuriakat and Suvik Farms parcels.[15] The results are summarized below.

Tracy Alliance Parcel

Phase I ESA

The project site has historically been utilized for agricultural operations. Currently, approximately 118 acres of the site are used for row crop production. Approximately 4 acres of the southwestern corner of the site are used for farming activities including an equipment storage yard, equipment and/or automotive maintenance, and hazardous material storage. Equipment maintenance associated with the farm activities is reportedly performed on the concrete pad on the east side of the haybarn. The hazardous material storage area was located primarily east of the haybarn and included pesticide, herbicide, and unlabeled oily drums. Pesticides and herbicides are reportedly mixed in the field and applied to the crops. A residential automotive maintenance area was observed in the residential garage and the gravel driveway south of the garage.

According to the Phase I ESA, the properties at 6599 and 6735 West Grant Line Road have the following Recognized Environmental Conditions (RECs) or Controlled RECs (CRECs) identified in connection with the site as shown in Exhibit 3.9-1a and Exhibit 3.9-b:

- **Wastewater Pond (western portion of the site):** Based on the duration of operations (approximately 25 years), unlined construction of the pond, absence of information pertaining to the management and regulatory oversight of the pond, reported operations (dairy farm),

[10] South San Joaquin County Fire Authority (South County Fire) No date. Community Risk Reduction. http://southcountyfa.org/community-risk-reduction.html.
[11] California Department of Forestry and Fire Protection (CAL FIRE). 2007. San Joaquin County Draft Fire Hazard Severity Zones in LRA.
[12] California Public Utilities Commission (CPUC). 2019. FireMap. Website: https://ia.cpuc.ca.gov/firemap/. Accessed October 28, 2020.
[13] Terracon Consultants, Inc. 2018. Phase I Environmental Site Assessment Tracy Ridge 6599 and 6735 W. Grant Line Road. December 21.
[14] Terracon Consultants, Inc. 2019. Limited Site Investigation Tracy Ridge 6599 and 6735 West Grant Line Road. May 10.
[15] Environmental Assessment Specialists, Inc. (EAS). 2020. Phase I Environmental Site Assessment Suvik and Zuriakat Properties 6103, 6281, and 6301 West Grant Line Road and 6050 West California Avenue. June 12.

absence of subsurface investigation, and shallow depth to groundwater in the site vicinity (approximately 12.5 and 20 feet below ground surface [bgs]), the former wastewater pond located on the western portion of the site is a REC.

- **Absence of Removal Records Associated with Historic Underground Storage Tank(s):** Underground storage tank (UST) removal records were not available for at least two 350-gallon gasoline USTs identified on the site, believed to be installed in the 1970s. The exact location of the USTs is unknown, though it is presumed to be near the residential garage near the southwestern portion of the site. At least one of the USTs was removed, and the status of the second reported UST is not known. Based on the absence of UST removal records, the historical USTs represents a significant data gap and is considered a REC.
- **Historical Aboveground Storage Tank Fueling Areas:** Three gasoline and/or diesel fueling aboveground storage tanks (ASTs) ranging between approximately 200 gallons and 500 gallons in size were observed at the southwestern portion of the site. During the site reconnaissance, the ASTs were observed on soil and not within secondary containment. Based on the site's history of petroleum hydrocarbon use, absence of secondary containment, and poor housekeeping practices, the historical AST fueling areas is a REC.
- **Petroleum Hydrocarbon Staining:** Multiple areas were observed to have surface stains at the southwestern corner of the site. Based on-site observations, the potential cause of the stains appeared to be from spills and/or leaks associated with vehicle and/or equipment maintenance activities and leaking containers and/or improper storage or disposal of hazardous material containers. Based on the site's history of petroleum hydrocarbon use, unknown nature of released materials, and poor housekeeping practices, the petroleum hydrocarbon staining represents a REC.
- **Unlabeled 55-Gallon Drum Storage Area:** Approximately ten 55-gallon unlabeled drums stored on soil were observed south of the cattle storm shed. Staining was not observed beneath the former drum area after removal; however, based on the unknown nature of materials stored in the drums and poor housekeeping practices, the former drum storage area represents a REC.
- **Burn Disposal Areas:** Two burn disposal areas approximately 35 square feet in size were observed east of the residence garage and north of the milk barn near the southwestern portion of the site. Although there is no evidence that hazardous substances were disposed of at the burn area, the unknown nature of materials burned at this location and their potential for site contamination/releases represent a REC.
- **Off-site Groundwater Impacts from Adjoining Western Open-Inactive Leaking Underground Storage Tank Facility:** Herbicide, pesticide, and petroleum hydrocarbon contamination impacting groundwater was identified at the western-adjoining former Haley's Flying Service property at concentrations above screening levels. Based on shallow depth to groundwater (11 feet bgs), open regulatory status, and reported pesticide, herbicide, and petroleum hydrocarbon contamination above screening levels, Haley's Flying Service represented a REC to the site.

In addition, three domestic groundwater wells were found on-site as shown in Exhibit 3.9-1b.

Limited Site Investigation

Based on the conclusions of the Phase I ESA, a Limited Site Investigation was prepared to assess the potential impacts from the RECs previously identified in the southwestern corner of the project site. According to the Limited Site Investigation, a total of 21 discrete samples from various depths and locations on-site were collected.[16]

On April 9, 2019, Ground Penetrating Radar Services (GRPS), the subcontracted geophysical professional, performed a geophysical survey. GPRS utilized ground-penetrating radar and magnetometer survey methods to perform the survey. The purpose of the survey was to attempt to determine the presence or absence of septic tanks, USTs, product pipelines, and buried utilities in the vicinity of the proposed boring locations prior to subsurface exploration.

The geophysical survey consisted of scanning the area of interest first with an electromagnetic instrument followed by a ground-penetrating radar scan to further evaluate any electromagnetic anomalies if present. The geophysical survey was performed in the specific soil boring locations.

Evidence of utility lines were identified near the residence. The proposed boring locations were adjusted in the field based on indications of utilities. Evidence of USTs were not identified during the geophysical survey.

On April 9 and 10, 2019, Terracon field representative, Mr. Patrick Keicher, oversaw the drilling of 19 soil borings B-1 through B-19, and the collection of two ash samples ASH-1 and ASH-2 (ash/burn areas); the locations of soil boring locations are shown in Exhibit 3.9-1a and Exhibit 3.9-1b. The soil borings were taken at locations of potentially contaminated soil. Yellow indicates the location of an AST, red indicates the location of drums/storage containers, orange indicates stained soil, blue indicates the location of a domestic well, green indicates the location of a septic system, and gray indicates other areas of concern. The soil borings were completed by Woodward Drilling, a California State-licensed driller, using a limited access and track-mounted direct-push drill rig for borings B-1 (boring taken from site of former dairy pond), B-2 (boring taken from site of former dairy pond), B-17 (boring taken from site of septic system), B-18 and B-19 (boring taken from site of septic system), and with hand augers for B-3 through B-16.

In general, Terracon encountered medium to high plasticity, brown, moist, very stiff lean clay near the surface to an approximate depth of 3 feet bgs. A medium plasticity, tan, moist, medium stiff silt was encountered beneath the lean clay to approximately 9 feet bgs, where a tannish-brown, dry to moist, medium dense poorly graded sand and a low plasticity, tannish brown, moist, medium stiff silt was encountered to the maximum explored depth of 10 feet bgs. Groundwater was not encountered at the maximum depth explored of 10 feet bgs.

The selected soil samples were analyzed for total petroleum hydrocarbons as gasoline, diesel, and motor oil (TPH-GRO, TPH-DRO and TPH-MORO) and volatile organic compounds (VOCs); Organochlorine pesticides (OCPs); chlorinated herbicides (CH); California Administrative Manual (CAM 17), and polycyclic aromatic hydrocarbons (PAHs).

[16] Terracon Consultants, Inc. 2019. Limited Site Investigation. May 10.

One 55-gallon drum of drill cuttings was containerized during the field activities. The drum will be properly disposed by a licensed disposal facility, and Terracon would forward the waste manifest to the co-applicants.

Soil Analytical Results

The following conclusions were made regarding the disposition of the soils on the project site:

- Staining or Photoionization detector (PID) readings indicative of a release were not identified or recorded during field sampling activities.
- OCP, CH, PAH, and VOCs were not detected in the analyzed soil samples above laboratory reporting limits (RLs).
- TPH-GRO, TPH-DRO, and TPH-MORO were not detected in the samples analyzed, except for TPH-DRO (41 mg/Kg) and TPH-MORO (120 mg/Kg) in sample ASH-1.
- Arsenic-impacted soils are present in the soil samples collected from the site. The arsenic impacts are within regional background concentrations, except for the ASH-2 sample.
- Metals were detected at various concentrations in the four soil samples above laboratory reporting limits. Arsenic concentrations in four samples exceed the residential screening levels, and two concentrations exceed the commercial/industrial non-cancer screening levels; however, the concentrations of arsenic detected appears consistent with naturally occurring arsenic as reported by the United States Geological Survey (USGS), except for the ASH-2 sample, which is likely associated with the material burned in the ash pile.

Based on the generally low concentrations of analytes observed in the soil samples, Terracon concluded that there does not appear to be a significant contaminant release from historical or current use of the property in the immediate area of the investigation. The Limited Site Investigation concluded that no further investigation or remediation was required.

Zuriakat and Suvik Farms Parcels

Historically, the Zuriakat and Suvik Farms parcels were vacant land as early as 1914 (Union Island, CA topographic map). The Zuriakat parcel was occupied by vacant land from at least 1937 to at least 1940 and then used as agricultural row crop land from at least 1957 to present. The Suvik Farms parcels have been used as agricultural land (row crops and orchards) from at least 1937 until present.

EAS completed their site reconnaissance on June 3, 2020. The Phase I ESA revealed no RECs in connection with the Zuriakat and Suvik Farm parcels. However, the following business environmental risks were identified:

- A wide variety of pesticides, including those containing persistent compounds such as lead and arsenic, may have been used during this period. No information was obtained indicating evidence of improper storage, disposal or application of these materials and a review of available historical aerial photographs did not show on-site improvements such as hangars, runways or large barns that would indicate significant storage, formulation, and handling of

these materials. However, given the planned extensive redevelopment and grading of the Zuriakat and Suvik Farms parcels and the limited regulation of the potential storage and usage of agricultural chemicals during a significant period of the land's historic agricultural land use, there is a potential for accumulation of elevated levels of the aforementioned constituents. On-site soils may contain pesticides/herbicides above actionable levels. Therefore, it is recommended that soil sampling and testing be performed on the Suvik Farms and Zuriakat parcels prior to redevelopment activities. Once the analysis has been completed, the results would verify that contaminated soils above action levels are/are not present.

- Markers indicating the presence of an underground petroleum pipeline owned by Chevron Pipeline Company were observed along the northern side of West Grant Line Road, adjacent to the south of the Suvik Farms parcels.
- Two on-site irrigation wells were observed within the unpaved access roads along the western properly line (the Suvik Farms parcels).
- One plastic aboveground fertilizer tank (10-1-10 NPK, gross estimate 24,020 lbs./2499-gallons per tank manifest) is located adjacent to an on-site irrigation channel to the southwest corner of the Zuriakat parcel as shown in Exhibit 3.9-2. The fertilizer tank and associated irrigation channel feeder lines appeared to be in good condition with no evidence of spills or leaks.

3.9.3 - Regulatory Framework

Federal

Occupational Health and Safety Act

The Occupational Safety and Health Administration (OSHA) of the U.S. Department of Labor is responsible for implementing and enforcing federal laws and regulations that address worker health and safety. OSHA requires specific training for hazardous materials users and handlers, provision of information (procedures for personal safety, hazardous materials storage and handling, and emergency response) to employees who may be exposed to hazardous materials, and acquisition of material safety data sheets from materials manufacturers. Material safety data sheets describe the risks, as well as proper handling and procedures, related to hazardous materials. Employee training must include response and remediation procedures for hazardous materials releases and exposures. Construction workers and operational employees at the project site would be subject to these requirements.

Code of Federal Regulations, Titles 29 and 40

Regulations in Code of Federal Regulations Title 29 include requirements to manage and control exposure to LBP and ACM. In California, these requirements are implemented by the California Occupational Safety and Health Administration (Cal/OSHA) under California Code of Regulations Title 8 (see further discussion of California Code of Regulations Title 8 below). The removal and handling of ACM is governed primarily by EPA regulations under Code of Federal Regulations Title 40. The regulations require that the appropriate State agency be notified before any demolition, or before any renovations, of buildings that could contain asbestos or ACM above a specified threshold.

Resource Conservation and Recovery Act and Comprehensive Environmental Response, Compensation, and Liability Act

The EPA is responsible for implementing and enforcing federal laws and regulations pertaining to hazardous materials. The primary legislation includes the Resource Conservation and Recovery Act of 1976 (RCRA) and the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act (SARA) and the Emergency Planning and Community Right-to-Know Act (known as SARA Title III). RCRA and the 1984 RCRA Amendments regulate the treatment, storage, and disposal of hazardous and nonhazardous wastes and mandate that hazardous wastes be tracked from the point of generation to their ultimate fate in the environment, including detailed tracking of hazardous materials during transport and permitting of hazardous material handling facilities. As permitted by RCRA, in 1992, the EPA approved California's program called the Hazardous Waste Control Law (HWCL), administered by DTSC, to regulate hazardous wastes in California, as discussed further below. The purpose of CERCLA is to identify and clean up chemically contaminated sites that pose a significant environmental health threat, and the Hazard Ranking System is used to determine whether a site should be placed on the National Priorities List for cleanup activities. SARA relates primarily to emergency management of accidental releases and requires annual reporting of continuous emissions and accidental releases of specified compounds that are compiled into a nationwide Toxics Release Inventory. Finally, SARA Title III requires formation of state and local emergency planning committees that are responsible for collecting material handling and transportation data for use as a basis for planning and provision of chemical inventory data to the community at large under the "right-to-know" provision of the law.

Hazardous Materials Transportation Act

Under the Hazardous Materials Transportation Act of 1975, the United States Department of Transportation (USDOT), Office of Hazardous Materials Safety regulates the transportation of hazardous materials on water, rail, highways, through air, or in pipelines, and enforces guidelines created to protect human health and the environment and reduce potential impacts by creating hazardous material packaging and transportation requirements. It also includes provisions for material classification, packaging, marking, labeling, placecarding, and shipping documentation. The USDOT provides hazardous materials safety training programs and supervises activities involving hazardous materials. In addition, the USDOT develops and recommends regulations governing the multimodal transportation of hazardous materials.

Aboveground Petroleum Storage Act, and Spill Prevention, Control, and Countermeasure Rule

The Aboveground Petroleum Storage Act of 1990, and the Spill Prevention, Control, and Countermeasure (SPCC) Rule (amended 2010) of the Oil Pollution Prevention regulation (40 Code of Federal Regulations [CFR] 112) require the owner or operator of a tank facility with an aggregate storage capacity greater than 1,320 gallons to notify the local Certified Unified Program Agency (CUPA) and prepare an SPCC plan. The SPCC plan must identify appropriate spill containment measures and equipment for diverting spills from sensitive areas and must discuss facility-specific requirements for the storage system, inspections, recordkeeping, security, and training.

Clean Water Act

The Clean Water Act (CWA) (Title 33 § 1251, *et seq*. of the United States Code [33 USC 1251, *et seq*.]) is the major federal legislation governing water quality. The CWA established the basic structure for regulating discharges of pollutants into waters of the United States (not including groundwater). The objective of the act is "to restore and maintain the chemical, physical, and biological integrity of the nation's waters."[17] The CWA establishes the basic structure for regulating the discharge of pollutants into waters of the United States. Responsibility for administering the CWA resides with the State Water Board and nine Regional Water Quality Control Boards (RWQCBs); the Central Valley RWQCB administers the CWA for western San Joaquin County. Section 404 of the CWA regulates temporary and permanent fill and disturbance of waters of the United States, including wetlands. The United States Army Corps of Engineers (USACE) requires that a permit be obtained if a project proposes to place fill in navigable waters and/or to alter waters of the United States below the ordinary high-water mark in non-tidal waters. Section 401 of the CWA requires compliance with State water quality standards for actions within State waters. Compliance with the water quality standards required under Section 401 is a condition for issuance of a Section 404 permit. Under Section 401 of the CWA, every applicant for a permit or license for any activity that may result in a discharge to a water body must obtain a State water quality certification from the RWQCB to demonstrate that the proposed activity would comply with State water quality standards.

State

California Hazardous Waste Control Law

The HWCL is the primary hazardous waste statute in the State of California, and implements RCRA as a "cradle-to-grave" waste management system for handling hazardous wastes in a manner that protects human health and the environment and reduces potential resulting impacts of hazardous waste. The law specifies that generators of hazardous waste have the primary duty to determine whether their waste is hazardous and to ensure proper management. The HWCL also establishes criteria for the reuse and recycling of hazardous waste used or reused as raw materials. The law exceeds federal requirements by mandating source reduction planning and a much broader requirement for permitting facilities that treat hazardous waste. It also regulates several types of waste and waste management activities that are not covered by federal law.

California Health and Safety Code

The California Health and Safety Code (Health and Safety Code [HSC] § 25141)[18] defines hazardous waste as a waste or combination of waste that may:

> . . . because of its quantity, concentration, or physical, chemical, or infection characteristics:
>
> (1) Cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitation-reversible illness.

[17] United States Environmental Protection Agency (EPA). 2018. Clean Water Act (CWA) and Federal Facilities. Website: https://www.epa.gov/enforcement/clean-water-act-cwa-and-federal-facilities#:~:text=CWA%20is%20the%20primary%20Federal,in%20compliance%20with%20a%20permit. Accessed November 5, 2020.

[18] FindLaw. 2020. California Code, Health and Safety Code–HSC § 25141. Website: https://codes.findlaw.com/ca/health-and-safety-code/hsc-sect-25141.html. Accessed November 5, 2020.

(2) Pose a substantial present or potential hazard to human health or the environment, due to factors including, but not limited to, carcinogenicity, acute toxicity, chronic toxicity, bioaccumulative properties, or persistence in the environment, when improperly treated, stored, transported, or disposed of or otherwise managed.

These regulations establish criteria for identifying, packaging, and labeling hazardous wastes; prescribe management practices for hazardous wastes; establish permit requirements for hazardous waste treatment, storage, disposal, and transportation; and identify hazardous waste that commonly would be disposed of in landfills.

Under both the RCRA and the HWCL, hazardous waste manifests must be retained by the generator for a minimum of 3 years. The generator must match copies of the manifests with copies of manifest receipts from the treatment, disposal, or recycling facility.

In accordance with Chapter 6.11 of the California Health and Safety Code (HSC § 25404, *et seq*.), local regulatory agencies enforce many federal and State regulatory programs through the CUPA program, including:

- Hazardous Materials Business Plans (HMBP) (HSC § 25501, *et seq.*);
- Uniform Fire Code requirements (Uniform Fire Code [UFC] § 80.103, as adopted by the State Fire Marshal pursuant to HSC § 13143.9);
- Underground storage tanks (HSC § 25280, *et seq.*);
- Aboveground storage tanks (HSC § 25270.5(c)); and
- Hazardous Waste Generator requirements (HSC § 25100, *et seq.*).

San Joaquin Environmental Health Department is the CUPA for San Joaquin County (which includes the City).[19] As the CUPA, San Joaquin Environmental Health Department enforces State statutes and regulations through the Hazardous Materials Unified Program Agency (HMUPA). The HMUPA oversees aboveground petroleum tanks; generation of hazardous materials; storage and treatment; USTs; generation of medical waste; the Accidental Release Prevention Program; and the Local Oversight Program (LOP), which interfaces with the State Water Board and the Central Valley RWQCB on LUSTs and UST release sites. An HMBP must be submitted if a facility ever handles any individual hazardous material in an aggregate amount equal to or greater than 55 gallons (liquids), 500 pounds (solids), or 200 cubic feet (gases). An HMBP must include:

- Details that include facility floor plans and identify the business conducted at the site;
- An inventory of hazardous materials handled or stored on the site;
- An emergency response plan; and
- A training program in safety procedures and emergency response for new employees who may handle hazardous materials, with an annual refresher course in the same topics for those same employees.

[19] California Environmental Reporting System. 2015. Unified Program Regulatory Directory: San Joaquin County Environmental Health. Website: http://cersapps.calepa.ca.gov/Public/Directory/RegulatorDetails/1056. Accessed November 5, 2020.

California Code of Regulations, Title 8

Cal/OSHA assumes primary responsibility for developing and enforcing workplace safety regulations. These regulations concern the use of hazardous materials in the workplace, including requirements for employee safety training; availability of safety equipment; accident and illness prevention programs; hazardous substance exposure warnings; and preparation of emergency action and fire prevention plans.

Cal/OSHA also enforces hazard communication program regulations, including procedures for identifying and labeling hazardous substances, and requires that safety data sheets be available for employee information and training programs. Cal/OSHA standards are generally more stringent than federal regulations.

California Code of Regulations, Title 8, Section 1529 authorizes Cal/OSHA to implement the survey requirements of Code of Federal Regulations Title 29 relating to asbestos. These federal and State regulations require facilities to take all necessary precautions to protect employees and the public from exposure to asbestos. Workers who conduct asbestos abatement must be trained in accordance with federal and State OSHA requirements. The San Joaquin Valley Air Pollution Control District (Valley Air District) oversees the removal of regulated ACM within San Joaquin County.

California Code of Regulations, Title 8, Section 1532.1 includes requirements to manage and control exposure to LBP. These regulations cover the demolition, removal, cleanup, transportation, storage, and disposal of lead-containing material. The regulations outline the permissible exposure limit, protective measures, monitoring, and compliance to ensure the safety of construction workers exposed to lead-based material. Loose and peeling LBP must be disposed of as a State and/or federal hazardous waste if the concentration of lead equals or exceeds applicable hazardous waste thresholds. Federal and State OSHA regulations require a supervisor who is certified in identifying existing and predictable lead hazards to oversee air monitoring and other protective measures during demolition activities in areas where LBP may be present. Special protective measures and notification of Cal/OSHA are required for highly hazardous construction tasks related to lead, such as manual demolition, abrasive blasting, welding, cutting, or torch burning of structures, where LBP is present.

California Code of Regulations Title 22, Division 4.5

California Code of Regulations, Title 22, Division 4.5 contains the Environmental Health Standards for the Management of Hazardous Waste, which includes California waste identification and classification regulations. California Code of Regulations, Title 22, Chapter 11, Article 3, "Soluble Threshold Limits Concentrations/Total Threshold Limits Concentration Regulatory Limits," identifies the concentrations at which soil is determined to be a California hazardous waste. California's Universal Waste Rule (22 CCR § 66273) provides an alternative set of management standards in lieu of regulation as hazardous wastes for certain common hazardous wastes, as defined in California Code of Regulations, Title 22, Section 66261.9. Universal wastes include fluorescent lamps, mercury thermostats, and other mercury-containing equipment. Existing structures may contain fluorescent light ballasts that could contain mercury or lead. The Alternative Management Standards for Treated Wood Waste (22 CCR § 67386) were developed by the DTSC to allow for disposal of treated wood as

a nonhazardous waste, to simplify and facilitate the safe and economical disposal of such waste. Chemically treated wood can contain elevated levels of hazardous chemicals (e.g., arsenic, chromium, copper, pentachlorophenol, or creosote) that equal or exceed applicable hazardous waste thresholds. The Alternative Management Standards provide for less stringent storage requirements and extended accumulation periods, allow shipments without a hazardous waste manifest and a hazardous waste hauler, and allow disposal at specific nonhazardous waste landfills.

Porter-Cologne Act

The Porter-Cologne Water Quality Control Act of 1969 (Porter-Cologne Act) is California's statutory authority for the protection of water quality. Under the Porter-Cologne Act, the State must adopt water quality policies, plans, and objectives that protect the State's waters for the use and enjoyment of the people. Regional authority for planning, permitting, and enforcement is delegated to the nine RWQCBs. The RWQCBs are required to formulate and adopt water quality control plans (also known as basin plans) for all areas of the region and establish water quality objectives in the plans. The Porter-Cologne Act sets forth the obligations of State Water Board and RWQCBs to adopt and periodically update water quality control plans that recognize and reflect the differences in existing water quality, the beneficial uses of the region's groundwater and surface water, and local water quality conditions and problems. It also authorizes the State Water Board and RWQCBs to issue and enforce waste discharge requirements and to implement programs for controlling pollution in State waters. Finally, the Porter-Cologne Act also authorizes the State Water Board and RWQCBs to oversee site investigation and cleanup for unauthorized releases of pollutants to soils and groundwater and in some cases to surface waters or sediments.

California Emergency Response Plan

California has developed an emergency response plan to coordinate emergency services provided by federal, State, and local governments and private agencies. Responding to hazardous materials incidents is one part of this plan. The plan is administered by the California Governor's Office of Emergency Services, which coordinates the responses of other agencies. The San Joaquin County Office of Emergency Services[20] coordinates response to emergencies in unincorporated areas of San Joaquin County.

California Department of Forestry and Fire Protection

CAL FIRE has mapped fire threat potential throughout California. CAL FIRE maps fire threat based on the availability of fuel and the likelihood of an area burning (based on topography, fire history, and climate). The threat levels include no fire threat, moderate, high, and very high fire threat. CAL FIRE produced a 2018 Strategic Fire Plan for California, which contains goals, objectives, and policies to prepare for and mitigate the effects of fire on California's natural and built environments. CAL FIRE's Office of the State Fire Marshal provides oversight of enforcement of the California Fire Code as well as overseeing hazardous liquid pipeline safety.

[20] San Joaquin County. 2019. Office of Emergency Services. Website: https://www.sjgov.org/department/oes/default. Accessed November 5, 2020.

California Building Code

The State of California provided a minimum standard for building design through the 2019 California Building Standards Code (CBC), which is located in Part 2 of Title 24 of the California Code of Regulations. The 2019 CBC is based on the 2018 International Building Code, but has been modified for California conditions. It is generally adopted on a jurisdiction by-jurisdiction basis, subject to further modification based on local conditions. Commercial and residential buildings are plan-checked by local City and County building officials for compliance with the CBC. Typical fire safety requirements of the CBC include the installation of sprinklers in all new high-rise buildings and residential buildings; the establishment of fire resistance standards for fire doors, building material; and specific types of construction.

California Public Resources Code

The California Public Resources Code includes fire safety regulations that restrict the use of equipment that may produce a spark, flame, or fire; require the use of spark arrestors[21] on construction equipment that use an internal combustion engine; specify requirements for the safe use of gasoline-powered tools in fire hazard areas; and specify fire suppression equipment that must be provided on-site for various types of work in fire prone areas.

These regulations include the following:

- Earthmoving and portable equipment with internal combustion engines would be equipped with a spark arrestor to reduce the potential for igniting a wildland fire (PRC § 4442);
- Appropriate fire suppression equipment would be maintained during the highest fire danger period—from April 1 to December 1 (PRC § 4428);
- On days when a burning permit is required, flammable materials would be removed to a distance of 10 feet from any equipment that could produce a spark, fire, or flame, and the construction contractor would maintain the appropriate fire suppression equipment (PRC § 4427); and
- On days when a burning permit is required, portable tools powered by gasoline-fueled internal combustion engines would not be used within 25 feet of any flammable materials (PRC § 4431).

San Joaquin County

San Joaquin Valley Air Pollution Control District

The Valley Air District has jurisdiction over the City of Tracy, and unincorporated areas within San Joaquin County, and deals with pollutants, including hazardous air pollutants such as asbestos. Additional information on the Valley Air District and air quality is provided in Section 3.3, Air Quality, of this Draft EIR.

[21] A spark arrestor is a device that prohibits exhaust gases from an internal combustion engine from passing through the impeller blades where they could cause a spark. A carbon trap is commonly used to retain carbon particles from the exhaust.

San Joaquin County's Aviation System Airport Land Use Compatibility Plan

The State Aeronautics Act requires the preparation and implementation of Airport Land Use Compatibility Plans (ALUCPs) for nearly all public airports in the State. ALUCPs are intended to ensure that incompatible development does not occur on land surrounding airports. To accomplish this goal, the State Aeronautics Act established the Airport Land Use Commission (ALUC) in counties having public use airports. The ALUC is charged with developing, updating, and implementing ALUCPs.

The San Joaquin Council of Governments adopted the San Joaquin County ALUCP in 1983 and updated it in 2009. The most recent update for the ALUCP for the Tracy Airport was part of that update.

San Joaquin County Department of Environmental Health Certified Unified Program Agency

The San Joaquin County Department of Environmental Health CUPA is the administrative agency that coordinates and enforces numerous local, State, and federal hazardous materials management and environmental protection programs in the County. The programs include Aboveground Petroleum Storage Program, CUPA, Food and Restaurants Program, Hazardous Waste Generator Program, Housing Abatement Program, Land Use Program, Liquid Waste Program, Milk and Dairy Program, Recreational Health Program, Small Public Water Systems Program, UST Program, and California Accidental Release Program.

City of Tracy

City of Tracy Local Hazard Mitigation Plan

The City of Tracy updated its Hazard Mitigation Plan (HMP) in September of 2019. The HMP identifies potential natural and human-made hazards, assesses their potential risks, and includes mitigation methods to reduce risks and determined the City is susceptible to floods, wildfires, severe weather, and earthquake hazards. The HMP includes 20 mitigation actions including emergency response and evaluation plans, public outreach, building safety and retrofitting, emergency preparedness coordination, education, facility upgrades, and monitoring actions. The HMP contains the following Goals aimed at reducing the vulnerability from natural hazards within the City:

Goal 1 Minimize loss of life and property from hazards;

Goal 2 Support community resilience through continuity of essential services during a hazard event;

Goal 3 Increase education and awareness of vulnerability to and mitigation of hazards; and

Goal 4 Improve City coordination and capabilities to mitigate hazards.

General Plan

Safety Element

The Safety Element, Chapter 8 of the City of Tracy General Plan (General Plan), discusses hazardous wastes and materials in the context of operations within the City and its SOI. According to the General Plan, San Joaquin County has prepared a Hazardous Material Area Plan, in accordance with

the California Health and Safety Code (Division 20, Chapter 6.95, § 25500 *et seq.*) and California Code of Regulations (Title 19, Article 3, § 2270 *et seq.*). The Hazardous Material Area Plan is designed to protect human health and the environment through hazardous materials emergency planning, response and agency coordination and community right-to-know programs. The Hazardous Material Area Plan outlines the roles and responsibilities of federal, State, and local agencies in responding to hazardous material releases and incidents. The City of Tracy's Police and Fire Departments work with San Joaquin County to implement this plan.

Furthermore, the General Plan sets forth numerous goals, objectives, policies, and actions associated with hazards including the following:

Wildland Fires

Goal SA-3 Protection of lives and property from wildland fire hazards.

Objective SA-3.1 Evaluate the potential for wildland fire hazards when considering new development.

Policies

P1 All development in areas of potential wildland fire hazards shall include the following:

- Clearance around structures.
- Fire-resistant ground cover.
- Fire-resistant roofing materials.

P3 New developments shall satisfy fire flow and hydrant requirements, street widths and design requirements as established by the City.

Hazardous Materials and Waste

Goal SA-4 Protection from the harmful effects of hazardous materials and waste.

Objective SA-4.1 Minimize exposure to harmful hazardous materials and waste by Tracy residents.

Policies

P1 Adequate separation shall be provided between areas where hazardous materials are present and sensitive uses such as schools, residences and public facilities.

P2 When reviewing applications for new development and redevelopment in areas historically used for commercial or industrial uses, developers shall conduct the necessary level of environmental investigation to ensure that soils, groundwater and buildings affected by hazardous material releases from prior land uses and lead or asbestos potentially present in building materials, will not have a negative impact on the natural environment or health and safety of future property owners or users.

P3 The safe transport of hazardous materials through Tracy shall be promoted by implementing the following measures:

- Maintain formally-designated hazardous material carrier routes to direct hazardous materials away from populated and other sensitive areas.
- Prohibit the parking of vehicles transporting hazardous materials on City streets.
- Require that new pipelines and other channels carrying hazardous materials avoid residential areas and other immobile populations to the extent possible.

P4 Emergency response plans shall be submitted as part of use applications for all large generators of hazardous waste.

P5 The City shall continue to encourage the reduction of solid and hazardous wastes generated within the City, in accordance with countywide plans.

Airport Safety

Goal SA-5 Protection from the risks associated with aircraft operations at the Tracy Municipal Airport.

Objective SA-5.1 Ensure that land uses within the vicinity of the Tracy Municipal Airport are compatible with airport restrictions and operations.

Policies

P1 Ensure that new development shall be consistent with setbacks, height and land use restrictions as determined by the Federal Aviation Administration and the San Joaquin County Airport Land Use Commission, as well as the policies of the City's Airport Master Plan.

Emergency Preparedness

Goal SA-6 Preparation for emergencies.

Objective SA-6.1 Prepare and update City emergency procedures in the event of natural or man-made disasters.

Policies

P1 Emergency access routes shall be kept free of traffic impediments.

Northeast Industrial Specific Plan

The NEI Specific Plan includes policies related to hazardous wastes and hazardous materials.

Hazardous Wastes and Waster Pollutants

1. All new industries locating with the area will be required to obtain a Discharge Permit from the Director of Utilities prior to occupancy. This permit shall establish the amount and quality of wastes allowed to be discharged into the City's sanitary sewer.
2. The quality of wastewater entering the City sewage system from the proposed uses shall be measured by the Biochemical Oxygen Demand (BOD) and Total Suspended Solids (TSS) levels referenced in the local Water Quality Control Board 208 Plan. Users that are not expected to comply with these standards will be required to provide on-site pretreatment facilities.

3. The storage and distribution of hazardous materials shall be subject to the rules of the San Joaquin County Health District.
4. Industries regularly using significant quantities of hazardous chemicals as defined by State Law in the course of their operations shall be required to obtain a Conditional Use Permit.

City of Tracy Municipal Code

Chapter 3.24, Emergency Organization and Function, of the City of Tracy Municipal Code provides regulations regarding emergency organization, including structure, duties, and functions of City staff during an emergency. Article 12, Hazardous Materials and Hazardous Waste Handling, provides regulations for the use, storage, and disposal of hazardous materials and hazardous waste within the City of Tracy.

3.9.4 - Impacts and Mitigation Measures

Significance Criteria

The City is utilizing the questions in Appendix G of the State California Environmental Quality Act (CEQA) Guidelines to establish thresholds of significance for the proposed project. According to CEQA Guidelines Appendix G, to determine whether impacts related to hazards and hazardous materials have significant environmental effects, the following questions are analyzed and evaluated. Would the proposed project:

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

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

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

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

e) Be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport and result in a safety hazard or excessive noise for people residing or working the project area?

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

Approach to Analysis

This evaluation focuses on whether the proposed project would result in changes to the physical environment that would cause or exacerbate adverse effects related to the use, transportation, disposal, accidental release, or emission of hazardous materials. The evaluation also includes a determination of whether the proposed project would result in changes to the physical environment, or would impair or interfere with emergency response plans, or would expose people or structures to increased wildfire hazards (including dangers from overhead power lines). For the evaluation of potential construction-related and operational impacts from existing hazardous materials in project site soils, sediments, groundwater, surface water, and structures, the results of environmental sampling are compared to identified screening levels. The following analysis is based, in part, on information provided by the General Plan, the Phase I ESA and Limited Site Investigation prepared for the Tracy Alliance parcels and the Phase I ESA prepared for the Zuriakat and Suvik Farms parcel, and State of California websites.

Additional analyses regarding hazards and health risk related to emissions of toxic air contaminants (TACs) are addressed in Section 3.3, Air Quality. Flooding and inundation hazards, including those related to erosion and mudflow, are addressed in Section 3.10, Hydrology and Water Quality. Traffic-related safety hazards are addressed in Section 3.14, Transportation. Other geotechnical-related safety hazards, such as earthquakes, are addressed in Section 3.7, Geology and Soils. Finally, excessive noise exposure with respect to airport use or air traffic is addressed in Section 3.12, Noise.

Impact Evaluation

Routine Transport, Use, or Disposal of Hazardous Materials

Impact HAZ-1:	**The proposed project could create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.**

Construction

During construction, the proposed project would be expected to involve the routine transport, use, and disposal of hazardous materials, such as diesel fuels, aerosols, and paints, which are typical for this type of industrial construction. The proposed project would be subject to the Hazardous Materials Transportation Act, California Public Resources Code, and other State and local laws and regulations that would reduce and limit the associated risks. Any handling, transporting, use, or disposal would be required to comply with applicable laws, policies, and programs set forth by various federal, State, and local agencies and regulations, including the EPA, RCRA, California Department of Transportation (Caltrans), and HMP.

During project site preparation and construction, the proposed project would require demolition and excavation. Potential release of hazardous materials associated with construction is discussed below.

Tracy Alliance Parcels

As described above, the Phase I ESA for the Tracy Alliance parcels noted several RECs including a wastewater pond (western portion of the site), absence of removal records associated with historic UST(s), historical AST fueling areas, petroleum hydrocarbon staining, unlabeled 55-gallon drum

storage area, burn disposal areas, and off-site groundwater impacts from adjoining western open-inactive LUST facility.

Because of these RECs, a Limited Site Investigation was prepared for these parcels. Based on the generally low concentrations of analytes observed in the soil samples, Terracon concluded that there does not appear to be a significant contaminant release from historical or current use of the parcels in the immediate area of the investigation. The Limited Site Investigation concluded that no further investigation or remediation was required.

Arsenic-impacted soils are present in the soil samples collected from the site. The arsenic impacts are within regional background concentrations, except for the ASH-2 sample. Therefore, Mitigation Measure (MM) HAZ-1a would be implemented to test soils for arsenic and to require remediation and documentation of no further action by the DTSC if site soils contain hazardous levels of arsenic.

Evidence of reported USTs on-site was identified. However, information pertaining to the location of the reported USTs was not identified in the regulatory databases or local agencies inquiries. In addition, three gasoline and/or diesel fueling ASTs ranging between approximately 200 gallons and 500 gallons in size were observed at the southwestern portion of the site. During the site reconnaissance, the ASTs were observed on soil and not within secondary containment. Therefore, if any of the reported USTs or ASTs are discovered during excavation activities, MM HAZ-1b would be implemented, which would require disposal and decommission of the USTs and ASTs in accordance with applicable regulations of the LOP and the American Petroleum Institute Standards, respectively.

Approximately ten 55-gallon unlabeled drums stored on soil were observed south of the cattle storm shed. Staining was not observed beneath the former drum area after removal; however, based on the unknown nature of materials stored in the drums and poor housekeeping practices, the former drum storage area represents a REC. MM HAZ-1b requires that any remaining unlabeled drums and containers be disposed of in accordance with applicable local, State, and federal laws and regulations.

Three domestic groundwater wells were found on-site. Because the wells are not to be used in the planned redevelopment of the project site, they must be properly abandoned, closed, or destroyed in accordance with local, State, and federal laws, regulations and guidelines.

The proposed project would demolish the existing buildings on-site. Given the age of the existing structures on the project site, it is conceivable that ACM and LBP may exist within these structures. Removal of these existing buildings could potentially create a significant hazard to the construction workers on the project site. This represents a potentially significant impact.

However, implementation of MM HAZ-1c would require the applicant for the development of the Tracy Alliance parcels to conduct asbestos and lead paint surveys prior to demolition activities and safely remove and dispose of any such materials in accordance with applicable State standards and other legal requirements, which would ensure impacts are reduced to a less than significant level.

Because of the nature of the agricultural uses on-site, standard dust mitigation measures would be implemented during all development and soil handling activities. During any grading or excavation activities of the Tracy Alliance parcels, development personnel must be made aware to look for unusual conditions suggesting buried debris or other potential adverse environmental conditions. In addition, if any abnormal soils are discovered during redevelopment, such as stained soils, hydrocarbon odors, or any other unusual odors, all construction activities would be stopped immediately and a qualified hazardous material consulting firm would be contacted for further assessment and monitoring, pursuant to MM HAZ-1d.

With implementation of MM HAZ-1a, MM HAZ-1b, MM HAZ-1c, and MM HAZ-1d construction impacts associated with hazardous materials on the Tracy Alliance parcels would be less than significant.

Zuriakat and Suvik Farms Parcels

Given the planned extensive development and grading of the Zuriakat and Suvik Farms parcels and the limited regulation of the potential storage and usage of agricultural chemicals during a significant period of these lands' historic agricultural land use, there is a potential for accumulation of elevated levels of lead and arsenic. On-site soils may contain pesticides/herbicides above actionable levels. Therefore, it is recommended that soil sampling and testing be performed on the Zuriakat and Suvik Farms parcels prior to redevelopment; MM HAZ-1a would be implemented to test soils for lead and arsenic and to require remediation and documentation of no further action by the San Joaquin Environmental Health Department if site soils contain hazardous levels of lead or arsenic.

Because of the nature of the agricultural uses on-site, implementation of standard dust mitigation measures during all redevelopment and soil handling activities would be required by MM HAZ-1d. During any grading or excavation activities of the Zuriakat or Suvik Farms parcels, development personnel must be made aware to look for unusual conditions suggesting buried debris or other potential adverse environmental conditions. In addition, if any abnormal soils are discovered during development, such as stained soils, hydrocarbon odors, or any other unusual odors, all construction activities would be stopped immediately and a qualified hazardous material consulting firm would be contacted for further assessment and monitoring, pursuant to MM HAZ-1d.

Markers indicating the presence of an underground petroleum pipeline owned by Chevron Pipeline Company were observed along the northern side of West Grant Line Road, adjacent to the Suvik Farms parcels. Pursuant to MM HAZ-1e, the applicant for development of the Suvik Farms parcels shall consult with Chevron and contact DigAlert prior to any ground disturbance and construction in that area.

Two on-site irrigation wells were observed within the unpaved access roads along the western properly line (the Suvik Farms parcels). Because the wells are not proposed to be used in the planned development of the project site, they would be required to be properly abandoned/closed or destroyed in accordance with local, State, and federal guidelines. This would be applied as a standard condition of approval**.**

Department performs routine inspections at facilities that are subject to HMBP requirements. The purpose of these inspections is to ensure compliance with existing laws and regulations concerning

HMBP requirements. Any routine storage, handling, transport, use, or disposal of hazardous materials during operation of the proposed project would be required to comply with all applicable laws, regulations, policies, and programs set forth by various federal, State, and local agencies, including the EPA, RCRA, Caltrans, the Hazardous Materials Transportation Act, and the City of Tracy HMP. Removal and disposal of hazardous materials would be conducted by a permitted and licensed contractor. Required compliance with applicable hazardous material laws and regulations would ensure that operation-related hazardous material use would not result in a significant hazard to the public or environment. Therefore, long-term operational impacts associated with hazardous materials are considered less than significant.

Level of Significance Before Mitigation

Potentially Significant

Mitigation Measures

MM HAZ-1a Conduct Soil Sampling (Tracy Alliance, Zuriakat, and Suvik Farms parcels)

Prior to the issuance of grading permits, the relevant applicant for an individual development proposal within the project site shall provide evidence of soil testing within the project boundary to confirm presence or absence of hazardous compounds such as lead and arsenic. The testing shall be conducted pursuant to a San Joaquin Environmental Health Department-approved sampling plan. If hazardous levels of hazardous compounds are found, excavated soils shall be sent off-site for disposal and any affected soils encountered should be properly characterized, treated and/or disposed of in accordance with applicable local, State, and federal laws and regulations. The relevant applicant shall complete any residual soil remediation in connection with the relevant individual development proposal to the satisfaction of San Joaquin Environmental Health Department, as evidenced by the submittal of a no further action letter. In addition, if hazardous contaminants related to the former agricultural use of the site (such as lead or arsenic) are found, a construction worker health and safety plan shall be prepared and shall be implemented during construction of the relevant individual development proposal.

MM HAZ-1b Proper Disposal and Decommission of Underground Storage Tanks, Aboveground Storage Tanks, and Unlabeled Drums (Tracy Alliance parcels only)

If any of the reported underground storage tanks (USTs) or aboveground storage tanks (ASTs) are discovered during excavation activities, the applicant for the development of the Tracy Alliance parcels shall dispose of and decommission the USTs and ASTs in accordance with applicable laws and regulations of the Local Oversight Program (LOP) and the American Petroleum Institute Standards, respectively. The unlabeled drums and containers observed during the site reconnaissance for the Phase I Environmental Site Assessment (Phase I ESA) for the Tracy Alliance parcels shall be characterized and disposed of in accordance with applicable local, State, and federal laws and regulations.

MM HAZ-1c Conduct Asbestos and Lead Surveys Prior to Demolition (Tracy Alliance parcels only)

Prior to the issuance of demolition permits for the existing buildings, the applicant for the development of the Tracy Alliance parcels shall retain a licensed professional to conduct asbestos and lead paint surveys. These surveys shall be conducted prior to the disturbance or removal of any suspect asbestos-containing materials (ACM) and lead-based paint (LBP), and these materials shall be characterized for asbestos and lead by a reliable method. All activities involving ACM and LBP shall be conducted in accordance with applicable laws and regulations, and all removal shall be conducted by properly licensed abatement contractors.

MM HAZ-1d Dust Mitigation and Soil Evaluation (Tracy Alliance, Zuriakat, and Suvik Farms parcels)

During any grading or excavation activities in connection with an individual development proposal within the project site, relevant development personnel shall be made aware to look for unusual conditions suggesting buried debris or other potential adverse environmental conditions. If any abnormal soils are discovered during development activities, such as stained soils, hydrocarbon odors, or any other unusual odors, all construction activities near the discovery shall be stopped immediately and the applicant for the relevant individual development proposal shall contact a qualified hazardous material consulting firm for further assessment and implementation of any appropriate actions as may be required under applicable laws and regulations before construction of the relevant individual proposal can begin again.

MM HAZ-1e Consultation with Chevron and DigAlert (Tracy Alliance and Suvik Farms parcel only)

Prior to any ground disturbance and construction along the northern side of West Grant Line Road, adjacent to the southern boundary of the Tracy Alliance and Suvik Farms parcels, the relevant applicant(s) for the development of the Tracy Alliance and/or Suvik Farms parcels shall consult with Chevron (www.chevron-pipeline.com; 800.762.3404) and DigAlert 811 to determine the location of the existing underground petroleum pipeline to facilitate avoidance during ground disturbance and construction activities.

Level of Significance After Mitigation

Less Than Significant

Hazardous Materials Upset Risk

Impact HAZ-2:	**The proposed project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment.**

Construction

Construction activity would be expected to involve the transport, use, and disposal of hazardous materials, such as diesel fuels, aerosols, and paints, which are typical for this type of light industrial uses. Transport, use, and disposal of hazardous materials can increase the risk of upset and accident conditions that could involve the likely release of hazardous materials into the environment. However, the use of these materials would be subject to the Hazardous Materials Transportation Act, California Public Resources Code, and other State and local laws and regulations that would reduce risks of accident by limiting the use of hazardous materials and reduce the associated risks of exposure. Any handling, transporting, use, or disposal would comply with applicable laws, regulations, policies, and programs set forth by various federal, State, and local agencies, including the EPA, RCRA, Caltrans, the Hazardous Materials Transportation Act, and the City of Tracy HMP, which are designed to reduce risk of upset and accident conditions involving the release of hazardous materials into the environment. Therefore, construction impacts related to hazardous materials upset risk would be less than significant.

Operation

During operation, tenants/operators may use potentially hazardous substances that are typical for this type of light industrial uses, including lubricants, hydraulic oils, and other substances. Small quantities of hazardous materials would be used on-site during operation of the proposed project, but not in sufficient quantities to create significant hazard in the unlikely event of upset or accident. These types of materials are common in such light industrial projects and represent a low risk to people and the environment when used and handled as intended and would not be expected to result in the release of hazardous materials into the environment. The handling, transport, and disposal of such substances must comply with all local, State, and federal laws and regulations, which reduce risks of accident conditions. As such, operational impacts related to hazardous materials upset risk would be less than significant.

Level of Significance

Less Than Significant

Hazardous Emissions Proximate to a School

Impact HAZ-3:	**The proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.**

Construction

The project site is not located within 0.25 mile of an existing or proposed school. The closest school, Banta Elementary School, is located approximately 0.35 mile to the east. As such, the proposed project would not emit hazardous emissions or handle hazardous materials, substances, or waste within 0.25 mile of a school, and construction impacts would be less than significant.

For informational purposes, the following is provided. Construction activity would be expected to involve the transport, use, and disposal of hazardous materials that are typical for this type of light industrial uses, such as diesel fuels, aerosols, and paints. However, the handling, transport, use, and

disposal of hazardous materials must comply with the Hazardous Materials Transportation Act, California Public Resources Code, and other State and local laws and regulations, which further limits the risk of emissions or release of hazardous materials, substances, or waste. Therefore, construction impacts in this regard be less than significant.

Operation

The project site is not located within 0.25 mile of a school. As such, the proposed project would not emit hazardous emissions or handle hazardous materials, substances, or waste within 0.25 mile of a school, and operational impacts would be less than significant.

For informational purposes, the following is provided. Because of the distance to the nearest school, the low probability of significant quantities of hazardous materials to be present on-site, and required project compliance with applicable laws and regulations pertaining to handling, storage, use, and transport of hazardous materials, substances, or waste, less than significant impacts would occur. Therefore, operational impacts related to hazardous emissions proximate to a school would be less than significant.

Level of Significance

Less Than Significant

Government Code Section 65962.5 Sites

Impact HAZ-4:	**The proposed project is 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, could create a significant hazard to the public or the environment.**

Construction and Operation

Tracy Alliance Parcels

As part of the Phase I ESA prepared for the Tracy Alliance parcels, regulatory database information was provided by EDR, a contract information services company. The purpose of the records review was to identify RECs in connection with this portion of the project site.

Federal and State/Tribal Databases

Below are the facility listings identified on federal and State/tribal databases within the American Society of Testing and Materials (ASTM)-required search distances from the approximate site boundaries. Listings included in Federal Databases are provided in Table 3.9-1.

Table 3.9-1: Federal Databases

Database	Description	Distance (miles)	Listings
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System	0.5	0
CERCLIS /NFRAP	Comprehensive Environmental Response, Compensation, and Liability Information System/No Further Remedial Action Planned	0.5	1

Database	Description	Distance (miles)	Listings
ERNS	Emergency Response Notification System	Site	0
IC/EC	Institutional Control/Engineering Control	Site	0
NPL	National Priorities List	1.0	0
NPL (Delisted)	National Priorities Delisted List	0.5	0
RCRA CORRACTS/TSD	RCRA Corrective Action Activity	1.0	0
RCRA Generators	Resource Conservation and Recovery Act	Site and adjoining properties	0
RCRA Non CORRACTS/TSD	RCRA Non-Corrective Action Activity	0.5	0
Source: Terracon Consultants, Inc. 2018. Phase I Environmental Site Assessment Tracy Ridge 6599 and 6735 W. Grant Line Road. December 21.			

Listings included in Federal Databases are provided in Table 3.9-2. Facilities are listed in order of proximity to the site. Additional discussion for selected facilities is provided in Table 3.9-3.

Table 3.9-2: Federal Databases Summary Table

Database	Description	Distance (miles)	Listings
AST	Above Ground Storage Tank Facilities	0.25	0
CA FID UST	Facility Inventory Database	0.25	1
CALSITES	CalSites Database	1.0	0
CALSITES (AWP)	Active Annual Workplan Sites	1.0	0
CERS	CalEPA Regulated Site Portal Data	0.25	0
CERS HAZ WASTE	CERS Hazardous Waste	0.25	4
ENVIROSTOR	State and Tribal-Equivalent CERCLIS	1.0	1
HAZNET	Facility and Manifest Data	Site	1
HIST CORTESE	Hazardous Waste and Substance Site List	0.5	1
HIST UST	Hazardous Substance Storage Container Database 1	1.0	6
LUST	Leaking Underground Storage Tanks	0.5	1
MWMP	Medical Waste Management Program Listing	0.25	1
RCRA-SQG	RCRA–Small Quantity Generator	0.25	0
RESPONSE	State and Tribal-Equivalent NPL	1.0	0
SLIC	Spills, Leaks, Investigation and Cleanup	0.5	1
SWEEPS UST	Statewide Environmental Evaluation and Planning System	0.25	1
SWF/LF	Solid Waste Facilities/Landfills	0.5	0

Database	Description	Distance (miles)	Listings
UST	Underground Storage Tank Facilities	Site and adjoining properties	1
VCP	Voluntary Cleanup Program	0.5	1
WMUDS/SWAT	Waste Management Unit Database/Solid Waste Disposal Sites	0.5	1
Source: Terracon Consultants, Inc. 2018. Phase I Environmental Site Assessment Tracy Ridge 6599 and 6735 West Grant Line Road. December 21.			

Table 3.9-3: Federal Databases Listed Facilities

Facility Name and Location	Estimated Distance/Direction/Gradient	Database Listing	Is the Facility a REC, CREC, or HREC to the Site?
Legacy Real Estate 6599 West Grant Line Road	Site	HAZNET	REC, discussed below
Mattos Farms 6735 West Grant Line Road		HIST UST	
Mattos Farms 6735 West Grant Line Road		HIST UST	
AT&T Mobility-Tracy 6245 California Avenue	Adjacent/North/Down-Gradient	CERS HAZ WASTE, CERS	No, based on file review discussed in Appendix G
TravIn Toys 21200 Paradise Road	Adjacent/North/Down-Gradient	HAZNET, CERS, HAZ WASTE, CERS	No, based on file review discussed in Appendix G
Nelson Costa 6200 West Grant Line Road	Adjacent/South-Southwest/Up-to Cross-Gradient	HIST UST	No, based on file review discussed in Appendix G
Nelson Costa 6200 West Grant Line Road		SWEEPS UST, HIST UST, CA FID UST	
Airy Farm 6200 West Grant Line Road		HIST UST	
Best Buy Distribution 2300 Chabot Court	Adjacent/South-/Up-Gradient	CERS HAZ WASTE, CERS	No, based on file review discussed in Appendix G
Systems Services of America 2301 Chabot Court, Suite 1	Adjacent/South/Up-Gradient	CERS HAZ WASTE, CERS	No, based on file review discussed in Appendix G
Haley Flying Service 2395 East Pescadero Avenue	Adjacent/West/Cross-Gradient	CPS-SLIC, CERS	REC discussed below
Haley Flying Service 21000 Paradise Road		SEMS-ARCHIVE, RCRA-SQG, ENVIROSTOR, LUST, VCP, SWEEPS	

Facility Name and Location	Estimated Distance/Direction/Gradient	Database Listing	Is the Facility a REC, CREC, or HREC to the Site?
		UST, HIST UST, CA FID UST, LIENS, FINDS, ECHO, HIST CORTESE, CERS	
Haley Flying Service 21000 Paradise Road		WMUDS/SWAT	
Source: Terracon Consultants, Inc. 2018. Phase I Environmental Site Assessment Tracy Ridge 6599 and 6735 West Grant Line Road. December 21.			

Legacy Real Estate (6599 West Grant Line Road) and Mattos Farms (6735 West Grant Line Road)

Legacy Real Estate (6599 West Grant Line Road) and Mattos Farms (6735 West Grant Line Road), which are former users of the Tracy Alliance parcels, are identified on the regulatory database Facility and Manifest Data (HAZNET) and two Hazardous Substance Storage Container Database (HIST UST) listings. Based on a review of the HAZNET listing for Legacy Real Estate, approximately 4.8 tons of asbestos containing material was removed from the site in the year 2014 and reported to have been disposed at a landfill. The HAZNET listing corresponds to a building removal identified by the City of Tracy in the year 2014. Refer to Section 4.2 of Appendix G.1 for further discussion. Based on a review of the two HIST UST listings, two 350-gallon gasoline USTs were installed in the year 1973. During the site reconnaissance, Mr. Mattos pointed out an empty rusting AST located west of the cattle barn was a former UST. During a telephone conversation on November 26, 2018, Mr. Mattos recalled a UST was located approximately 5 feet south of the residence garage and recalled the UST had a crank pump attached to it. Mr. Mattos did not recall when the UST was removed and was not aware of a second UST on the site. Terracon requested UST removal records on file with the City, State and local agencies; however, information associated with the reported USTs was not found. Based on the absence of UST removal records, the historical USTs represent a significant data gap and REC in connection with these lands. Therefore, if any of the reported USTs are discovered during excavation activities, MM HAZ-1b would be implemented, which would require disposal and decommission of the USTs in accordance with applicable laws and regulations of the LOP.

Haley Flying Service (2395 East Pescadero Avenue, formerly 21000 Paradise Road)

Haley Flying Service (2395 East Pescadero Avenue), located to the adjoining west and hydrogeologically and topographically cross-gradient relative to the site, is identified on the Statewide Spills, Leaks, Investigation and Cleanup (SLIC) Cases GeoTracker (CPS-SLIC) and the California Environmental Reporting System (CERS) databases. Based on a review of the listing, the facility is an open and active cleanup case with potential pesticide and herbicide contamination. Terracon reviewed the facility's files available on State Regional Water Quality Control Board GeoTracker website. Based on a review of a memorandum dated from 1974, the facility was a former crop dusting operation with concerns regarding stormwater runoff and wastewater discharge. The memorandum indicated wastewater from aircraft washings discharged to a ditch behind the property which runs parallel to a water district irrigation distribution canal. A letter dated from 1988 from the RWQCB to Haley Flying Service, indicated the Water Board collected soil samples from an irrigation ditch at the facility and reported

low levels of pesticides and herbicides including 2,4-D, diuron, linuron, and endosulfan identified in the samples. A note on GeoTracker and inspection report dated 1990 indicated the facility's discharge system, including a sump and evaporation system, were not within regulatory compliance. There was no additional information available for the address on GeoTracker after the year 1990.

The facility was additionally identified at 21000 Paradise Road, a former property address, and was identified on the Superfund Enterprise Management System (SEMS-ARCHIVE), RCRA–Small Quantity Generator (RCRA-SQG), DTSC Envirostor website (ENVIROSTOR), LUSTs, Voluntary Cleanup Program (VCP), Waste Management Unit Database/Solid Waste Disposal Sites (WMUDS/SWAT), Environmental Liens Listings (LIENS), Facility Index System (FINDS), Enforcement Compliance History Information (ECHO), Hazardous Waste and Substance Site List (HIST CORTESE), SWEEPS UST, HIST UST, CA FID UST, and CERS databases. Based on a review of the listings, the facility was a small quantity hazardous waste generator of industrial waste which treats and/or disposes of liquid or semisolid waste; however, the facility did not have reporting requirements. Based on a review of the LUST listings, in 1988, a gasoline release affecting drinking water was reported and was listed as closed as of 1998. A HIST UST listing, indicated two 1,000-gallon gasoline USTs, and two 2,000-gallon waste USTs were reported on the property in the 1970s. The SWEEPS UST listing indicated a 1,000-gallon gasoline UST and 5,000-gallon aviation fuel UST were reported on the property in the 1990s. Terracon requested information regarding the LUST listings on file with the San Joaquin County Environmental Health Department; however, a response had not been received at the issuance of this report.

Based on a review of the ENVIROSTOR website, the facility was a former agricultural aerial operation which applied herbicides and pesticides to local agricultural fields. Spray tanks and airplanes were rinsed on the property and the tank rinse water was pumped into a concrete lined washout pit. The website noted improper hazardous material handling practices as the probable cause of soil contamination on the property. The website indicated in 1982 an unspecified amount of hazardous material was removed from the property. A site screening was performed in 1987 followed by a preliminary assessment in 1988. The facility entered a Voluntary Cleanup Act (VCP) agreement in 2005 and a Preliminary Endangerment Assessment (PEA) was prepared by Geo-Phase Environmental (Geo-Phase) in 2006. Based on a review of diagrams contained in the Geo-Phase PEA, the facility washdown areas and loading docks were located on the eastern portion of the property approximately 100 feet west of the Tracy Alliance parcels. The soil analytical results were reported in milligrams per kilogram (mg/kg) and the groundwater analytical results were reported in micrograms per liter (ug/L). The PEA indicated elevated levels of pesticides and herbicides were detected in soil and groundwater samples collected from the property. The PEA included a Human Health Hazard Assessment and indicated detected levels of chlordane, DDD, DDE, DDT, dieldrin, endosulfan, endrin, and toxaphene were above California Human Health Screening Levels (CCHSLs). Groundwater was reported at 11 feet bgs. The PEA recommended further site characterization including additional soil and groundwater analysis. A PEA approval letter dated February 9, 2006, from the DTSC to the property owner, indicated the property was "highly contaminated" and concurred with the Geo-Phase PEA recommendations.

Additionally, the PEA indicated in 1990 soil and groundwater samples collected during the removal of a 1,000-gallon gasoline UST and 5,000-gallon aviation fuel UST identified elevated levels of

petroleum hydrocarbons. The soil analytical results were reported in parts per million (ppm) equivalent to mg/kg and the groundwater analytical results were reported as parts per billion (ppb) which is equivalent to ug/L. Soil samples collected from the 5,000-gallon UST tank excavation identified gasoline hydrocarbons (610 mg/kg), benzene (6.5 mg/kg), toluene (62 mg/kg), ethylbenzene (41 mg/kg), and xylene (169 mg/kg) above Tier 1 Environmental Screening Levels (ESLs). Benzene (3.9 ug/L), toluene (19.4 ug/L), ethylbenzene (7.5 ug/L) and xylene (32 ug/L) were identified in a groundwater sample collected from the 5,000-gallon tank excavation of which benzene and xylene were reported above ESLs. The PEA noted mitigation records associated with the petroleum hydrocarbon LUST were misplaced in the County records and presumed the LUST release had been adequately mitigated and closed. There were no additional reports for the property after the year 2006. Based on proximity to the site, open regulatory status, reported impacts to soil and groundwater, and shallow depth to groundwater (11 feet), Haley's Flying Service represents a REC to the site.

Because of these RECs, a Limited Site Investigation was prepared for these parcels. Based on the generally low concentrations of analytes observed in the soil samples, Terracon concluded that there does not appear to be a significant contaminant release from historical or current use of the parcels in the immediate area of the investigation. The Limited Site Investigation concluded that no further investigation or remediation was required.

Arsenic-impacted soils are present in the soil samples collected from the site. The arsenic impacts are within regional background concentrations, except for the ASH-2 sample. Therefore, MM HAZ-1a would be implemented to test soils for arsenic and to require remediation and documentation of no further action by the San Joaquin Environmental Health Department if site soils contain hazardous levels of arsenic.

Zuriakat and Suvik Farms Parcels

As part of the Phase I ESA prepared for the Zuriakat and Suvik Farms parcels, EAS completed a regulatory records review of the following federal, State, and local regulatory agencies to identify use, generation, storage, treatment and/or disposal of hazardous materials and chemicals or release incidences of such materials.

- Federal National Priorities List (NPL) Sites
- Federal Delisted NPL Sites
- CERCLA
- Comprehensive Environmental Response, Compensation, and Liability Information System List (CERCLIS)
- Federal CERCLIS: No Further Remedial Action Planned (NFRAP) Site List
- Federal RCRA Generator's List
- Federal RCRA Non-CORRACTS TSD Facilities List
- Federal RCRA CORRACTS Facilities List

- Federal RCRA Treatment, Storage and Disposal Facilities (TSDF) List
- Federal Institutional Control/Engineering Control (IC/EC) Registries
- Federal Emergency Response Notification System (ERNS) List
- State and Tribal Lists of Hazardous Waste Site Identified for Investigation or Remediation
- State and Tribal-Equivalent NPL
- State and Tribal-Equivalent CERCLIS
- State and Tribal-Landfill and/or Solid Waste Disposal Site Lists
- State and Tribal-Leaking Storage Tanks Lists
- State and Tribal Registered Storage Tank Lists
- State and Tribal Institutional Control/Engineering Control Registries
- State and Tribal Voluntary Cleanup Sites
- State and Tribal Brownfield Sites
- Cal/EPA, State Water Board, GeoTracker
- State of California, DTSC Envirostor
- San Joaquin Valley Air Pollution Control District

The results are compiled in the Phase I ESA prepared for the Zuriakat and Suvik Farms parcels, included as Appendix G. Based on the findings of this assessment, the Zuriakat and Suvik Farms parcels were not included on any institution/engineering control databases that track activity and use limitation on properties. Therefore, impacts related to potential location on a hazardous materials site and, thus, creating a hazard to the public or environment would be less than significant.

Level of Significance Before Mitigation

Potentially Significant

Mitigation Measures

Implement MM HAZ-1a and MM HAZ-1b

Level of Significance After Mitigation

Less Than Significant

Proximity to Airport Safety Hazard

Impact HAZ-5:	**The proposed project would not be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, and result in a safety hazard or excessive noise for people residing or working in the project area.**

Construction and Operation

The proposed project is located greater than 5 miles northeast from the Tracy Municipal Airport. At this distance, the proposed project would not be located within an airport land use plan or within 2 miles of a public airport. Therefore, no impact related to exposure of people to safety hazards or excessive noise in proximity to an airport would occur.

Level of Significance

No Impact

Emergency Response and Evacuation

Impact HAZ-6: The proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

Construction and Operation

During construction, it is expected that construction equipment and vehicles would be accessing and leaving the project site, which in turn could potentially impede evacuation or emergency vehicle access. During operation, employee vehicles would need to access and leave the project site. Neither the San Joaquin County Local HMP nor the City of Tracy Local HMP include specific evacuation routes. However, main arterial roads into and out of the project vicinity that would serve as evacuation routes in case of emergency would be Interstate 205 (I-205) in the east–west direction and I-5 in the north–south direction as well as Paradise Road and Grant Line Road. As discussed further in Section 3.17 (Wildlife), given there are several alternate routes that provide access to these evacuation routes, the proposed project would not impair implementation of or physically interfere with these evacuation routes. With adherence to the applicable procedures of the San Joaquin County Local HMP and the City of Tracy Local HMP, the proposed project would not conflict with the relevant General Plan safety policies. Therefore, construction and operational impacts related to emergency response and evacuation would be less than significant.

Level of Significance

Less Than Significant

Wildland Fires

Impact HAZ-7: The proposed project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

Construction and Operation

The project site is located adjacent to the northeast of the city limits and I-205. The area surrounding the project site is mostly agricultural land and light industrial warehouses. In addition, the unincorporated community of Banta lies southeast of the project site. As such, the project site is surrounded by urban development and managed land without steep terrain or unmanaged open space areas prone to wildfires. The closest open space area is located approximately seven miles south of the project site. The project site has not previously experienced wildfire. Given that the project site is not located in or near an area of steep terrain or historical wildfire burn, there is a low likelihood that the project site would be prone to greater wildfire risk.

As described previously and discussed further in Section 3.17, Wildfire, neither the City nor the project site are in a High or Very High Fire Hazard Severity Zone as designated by CAL FIRE.[22] According to the CPUC, there are no Tier 2-Elevated Zones or Tier 3-Extreme Zones within the City of Tracy.[23] The closest fire prone areas located in a designated fire hazard zone are the southwest areas of the City's SOI, over seven miles southwest of the project site.

As discussed in more detail in Section 3.13, Public Services, Impact PUB-1, the proposed project would be adequately served by fire protection services from the Tracy Fire Department. Furthermore, project structures would be required to comply with applicable provisions of the California Fire Code with respect to emergency access and use of building materials that would limit the spread of wildfire to the greatest extent feasible. Compliance with applicable State and local plans, laws and regulations would decrease the risk of impacts related to wildland fire hazards. Specifically, the General Plan includes goals (Goal SA-3), objectives (Objective SA-3.1), and policies (PI and P3) that incorporate requirements for fire-safe construction into the land use planning process. Therefore, impacts related to wildland fire risk would be less than significant.

Level of Significance

Less Than Significant

3.9.5 - Cumulative Impacts

The geographic scope of the cumulative hazards and hazardous materials cumulative analysis is the City. The cumulative projects included in this analysis are those listed in Chapter 3, Environmental Impact Analysis, Table 3-1 as well as the proposed project.

Hazardous Materials Exposure Risk

In general, exposure to hazardous materials may cause localized adverse effects. A combination of federal, State, and local laws and regulations limit or otherwise minimize the potential for exposure to hazardous materials. Cumulative development listed in Table 3-1 consists predominantly of residential, industrial, commercial, public, and roadway improvements. The types and sizes of cumulative development anticipated in the project vicinity would not be anticipated to involve large quantities of hazardous materials or activities that transport or handle hazardous materials. Cumulative projects would be subject to the Hazardous Materials Transportation Act, California Public Resources Code, and other State and local laws and regulations that would reduce and limit the associated risks. Any handling, transporting, use, or disposal would be required to comply with applicable laws, regulations, policies, and programs set forth by various federal, State, and local agencies, including the EPA, RCRA, Caltrans, and HMP.

However, cumulative projects listed in Chapter 3, Environmental Impact Analysis, Table 3-1, may include demolition of existing structures that have the potential to contain hazardous building materials. Building materials may contain ACM and LBP. To address potential release of hazardous materials, the City would require the applicants of cumulative developments to assess structures and comply with standard conditions of approval/ mitigation measures (e.g., required testing,

[22] California Department of Forestry and Fire Protection (CAL FIRE). 2007. San Joaquin County Draft Fire Hazard Severity Zones in LRA.
[23] California Public Utilities Commission (CPUC). 2019. FireMap. Website: https://ia.cpuc.ca.gov/firemap/. Accessed October 28, 2020.

removal, and proper disposal) to minimize release prior to any demolition. Additionally, a comprehensive regulatory framework involving regional, State, and federal laws and regulations would apply to these cumulative projects, which would further ensure a less than significant cumulative impact related to exposure to hazardous materials.

With respect to the proposed project, similarly, it would be required to adhere to standard conditions of approval and identified mitigation, and otherwise ensure compliance with all applicable laws, regulations, plans and policies related to transport, use, and disposal of hazardous materials, as discussed above. For these reasons, the proposed project's incremental contribution to this less than significant cumulative impact would not be cumulatively considerable.

Hazards and Emergency Response

The main arterial streets that would act as the most likely evacuation routes for cumulative developments out of the City are I-205 (east–west), I-205 (north–south), and I-580 (east–west). Planned uses as proposed by the cumulative projects are contemplated in the General Plan, would result in predominantly in-fill development, and would not significantly increase need for emergency services, including those related to wildfires. Furthermore, all construction would be required to adhere to all applicable laws and regulations, including those in the California Fire Code, which are designed to minimize the potential for the release of hazardous materials or uncontrolled fires. Once development is proposed, the City would assess the needs for fire protection services and inform efforts to improve or expand needed facilities.

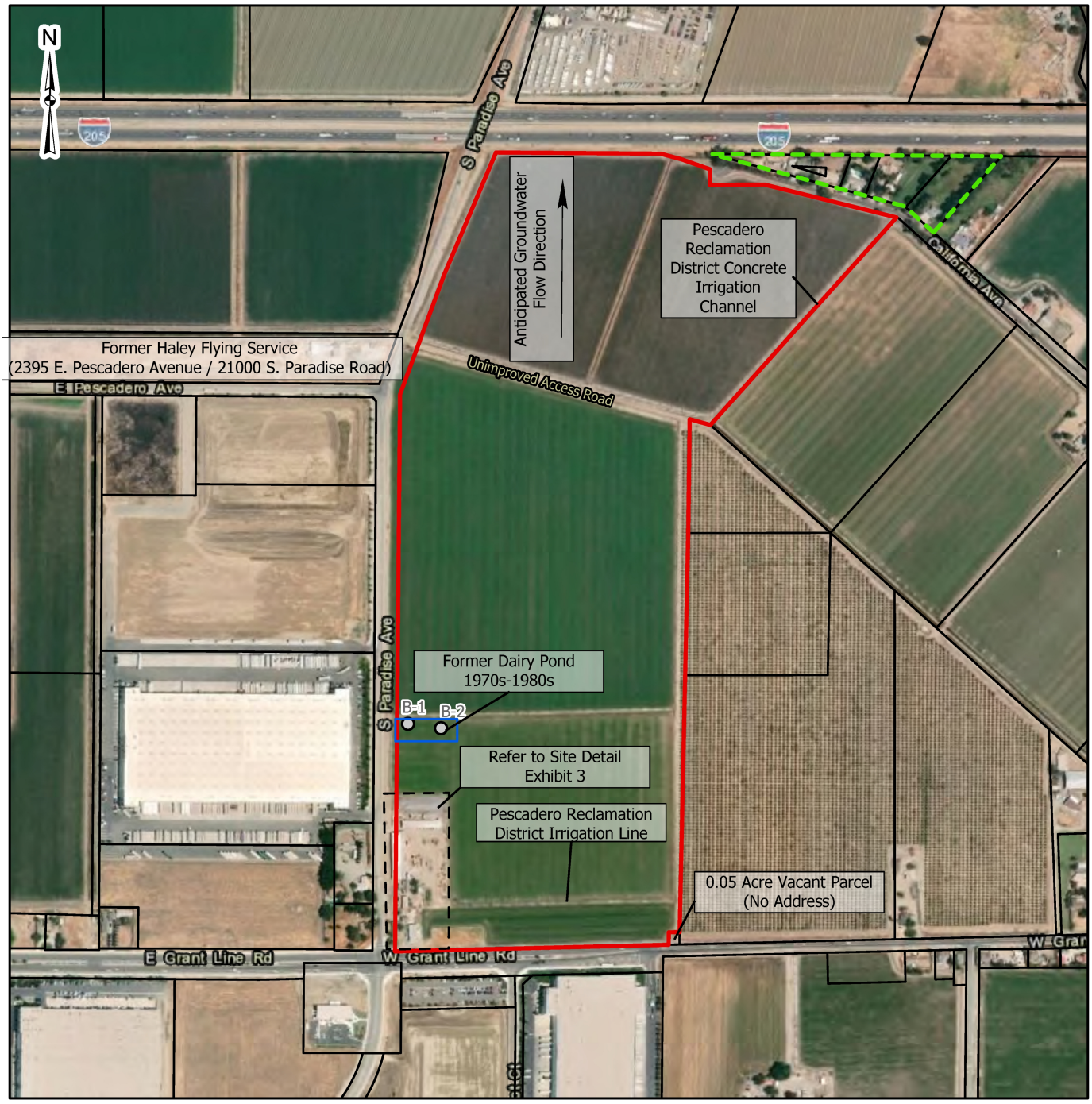
As listed in Table 3-1, cumulative development in the City consists predominantly of residential, industrial, commercial, public, and roadway improvements. The types of cumulative development would increase the population, as contemplated in the City's General Plan. All cumulative development would, however, be required to comply with emergency access requirements as standard conditions of approval. Furthermore, the cumulative development in the City would be required to ensure no permanent road closures, would not be permitted to impede established emergency access routes, or interfere with emergency response requirements. As such, there would be a less than significant cumulative impact associated with hazards and emergency response.

With respect to the proposed project, similarly, it would be required to adhere to standard conditions of approval and identified mitigation, and otherwise ensure compliance with all applicable laws, regulations, plans and policies related to emergency access routes and emergency response requirements. For these reasons, the proposed project's incremental contribution to this less than significant cumulative impact would not be cumulatively considerable.

Level of Cumulative Significance

Less Than Significant

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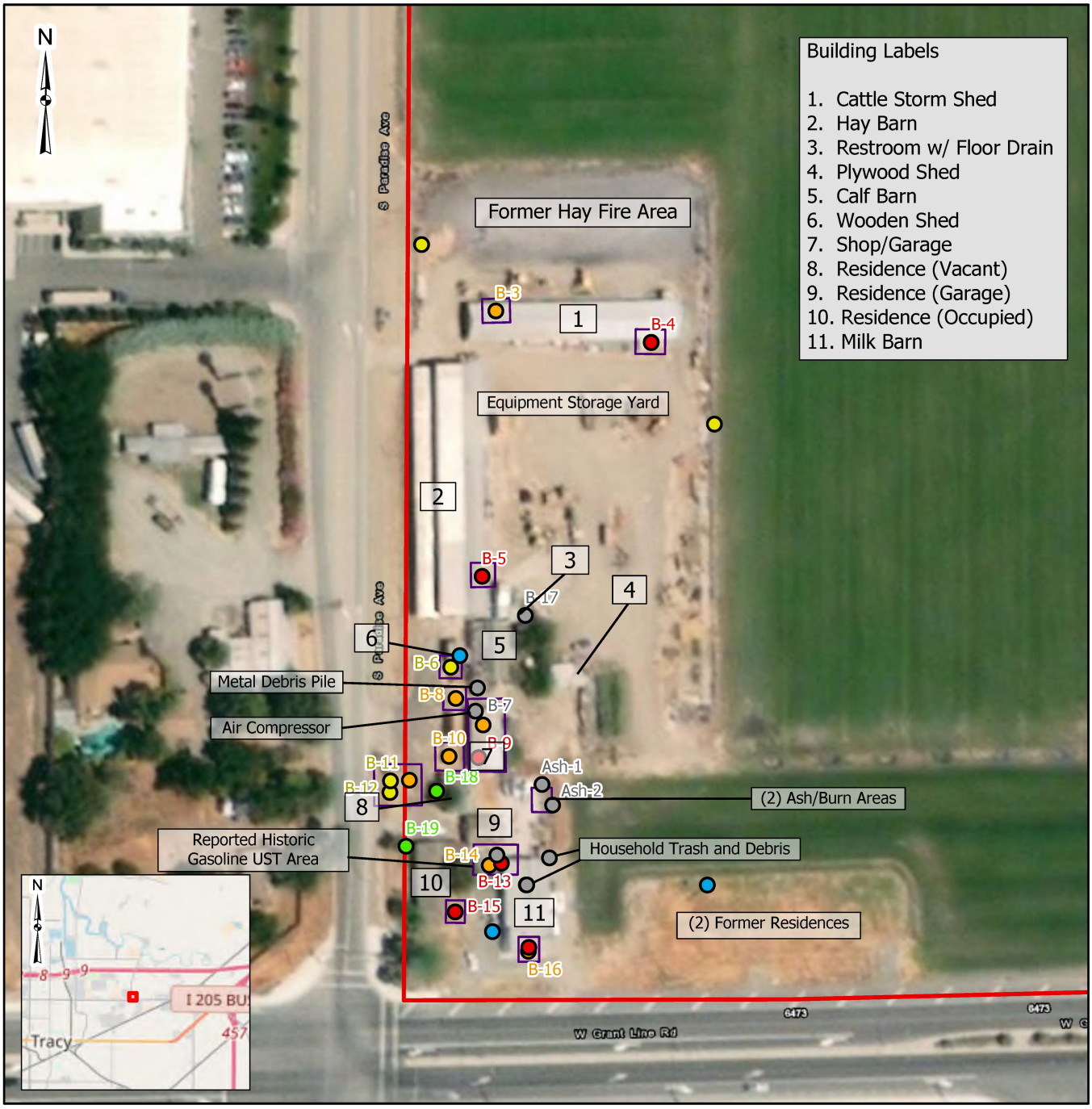


Source: Terracon, May 9, 2019.

Exhibit 3.9-1a
Site Overview and Boring Locations (B-1 and B-2), Tracy Alliance Parcels

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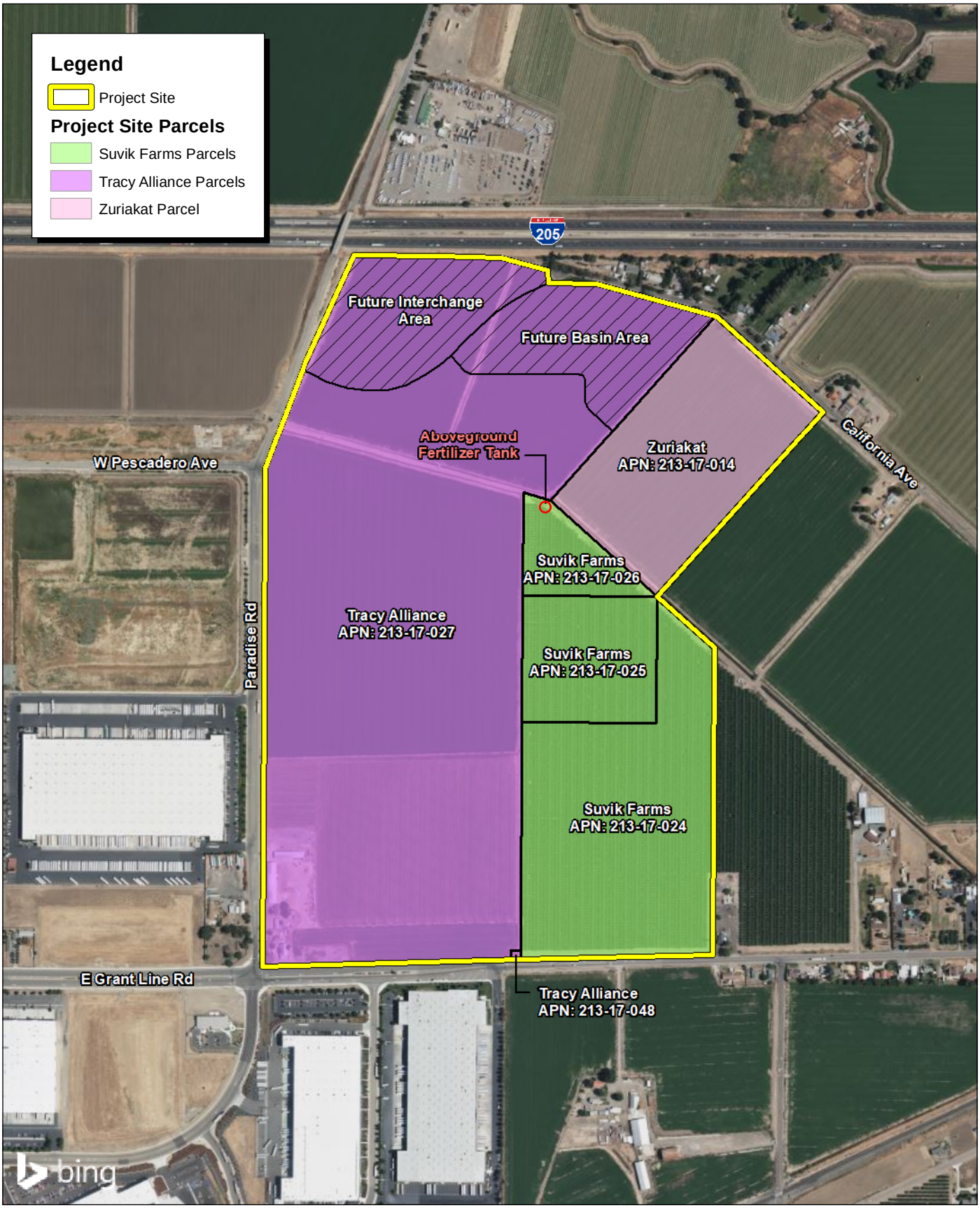


Source: Terracon, May 9, 2019.

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Exhibit 3.9-1b
Location of RECs, CECs, and Soil Boring Locations, Tracy Alliance Parcels

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Source: Bing Aerial Imagery. County of San Joaquin.

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700 350 0 700 Feet

Exhibit 3.9-2
Location of Aboveground Fertilizer Tank, Zuriakat and Suvik Farms Parcels

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3.10 - Hydrology and Water Quality

3.10.1 - Introduction

This section describes the existing hydrology and water quality setting and potential effects from implementation of the Tracy Alliance Project (proposed project) on the site and its surrounding area. Descriptions and analysis in this section are based, in part, on information contained in the Technical Memorandum regarding Tracy Alliance Flood Protection prepared by Woods Rodgers (Flood Protection Technical Memorandum, provided in Appendix H), Water Supply Assessment (WSA), City of Tracy General Plan (General Plan), Northeast Industrial (NEI) Specific Plan and NEI Specific Plan Environmental Impact Report (EIR), San Joaquin County 2035 General Plan and San Joaquin County 2035 General Plan EIR, City of Tracy Erosion and Sediment Control Plan (ESCP), and the 2012 City of Tracy Citywide Storm Drainage Master Plan (2012 SDMP). The 2020 Draft Citywide Storm Drainage Master Plan Update (Draft 2020 SDMP) is currently being finalized, but this document has not yet been approved and adopted by the City. Because this document has not yet been approved and adopted, the technical analysis in this Draft EIR relies on the approved 2012 SDMP, which was the applicable plan in effect at the time of publication of the Notice of Preparation. The following comments were received during the Notice of Preparation (NOP) scoping period related to hydrology and water quality:

- The commenter explains the various RWQCB regulations and policies that would need to be discussed in the EIR and properly mitigated for with respect to water quality and discharges from the proposed project. In addition, the commenter explains the types of permits required for this project to comply with regulations meant to protect water quality.

3.10.2 - Environmental Setting

Surface Hydrology

San Joaquin River Basin

The San Joaquin River Basin covers 15,880 square miles and includes the entire area drained by the San Joaquin River. It includes all watersheds tributary to the San Joaquin River and the Delta south of the Sacramento River and south of the American River watershed. The principal streams in the basin are the San Joaquin River and its larger tributaries: the Cosumnes, Mokelumne, Calaveras, Stanislaus, Tuolumne, Merced, Chowchilla, and Fresno Rivers.[1]

Project Site

The project site is located within the San Joaquin River Basin. The main waterway near the project site is the Old River, a tributary of the San Joaquin River, located approximately 2,000 feet north of the project site.

[1] Central Valley Regional Water Quality Control Board (Central Valley RWQCB). 2018. The Water Quality Control Plan (Basin Plan) for the California Regional Water Quality Control Board Central Valley Region. Fifth Edition, page 1-2. Website: https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr_201805.pdf. Accessed January 29, 2021.

Surface Water Quality

City of Tracy

The City and its Sphere of Influence (SOI) are located within the San Joaquin Hydrologic Basin Planning Area under the jurisdiction of the Central Valley Regional Water Quality Control Board (Central Valley RWQCB). The Central Valley RWQCB Basin Plan outlines the beneficial water uses that the California State Water Resources Control Board (State Water Board) will protect, water quality objectives, and strategies for achieving these objectives. The State of California requires small communities to implement development standards to protect water quality under the "General Permit for Waste Discharge Requirements for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4s) Order No. "2013-0001-DWQ" (MS4 Permit). On February 5, 2013, the second Phase II Small MS4 General Permit was adopted and became effective on July 1, 2013. The Cities of Lathrop, Lodi, Manteca, Patterson, Tracy, and San Joaquin County (Partners) collaborated to develop a Multi-Agency Post-Construction Standards Manual to meet the MS4 permit requirement.[2]

Project Site

The project site is located within the San Joaquin Hydrologic Basin Planning Area under the jurisdiction of the Central Valley RWQCB. No bodies of water under the jurisdiction of the Central Valley RWQCB are located on or near the project site. The closest water body to the project site is the Old River, which is approximately 0.4 mile north across Interstate 205 (I-205).

Groundwater

City of Tracy

The City and its SOI overlie the San Joaquin Valley Groundwater Basin-Tracy Groundwater Subbasin (Tracy Subbasin). The Tracy Subbasin underlies portions of San Joaquin, Contra Costa, and Alameda Counties and is bounded to the west by the Diablo Range, to the north by the Mokelumne and San Joaquin Rivers, to the east by the San Joaquin River, the south by the San Joaquin-Stanislaus County line.

Within the City of Tracy, groundwater is generally present below the ground surface at depths of 100 feet or more. However, depths to groundwater become very shallow toward the central and northern portions where the topography becomes flatter.

The City currently operates nine groundwater wells, with a total extraction capacity of approximately 18,300 gallons per minute (gpm), or 26 mgd.[3] Four wells (Production Wells 1, 2, 3 and 4) are located near the City's John Jones Water Treatment Plant (JJWTP) and pump directly into the JJWTP clearwells where the groundwater is blended with treated surface water. The other wells (Lincoln Well, Lewis Manor Well [Well 5], Park and Ride Well [Well 6], Ball Park Well [Well 7], and Well 8) are located throughout the City and pump water directly into the distribution system after disinfection. The City's newest well, Well 8, located near the intersection of Tracy Boulevard and 6th Street, was designed as an

[2] City of Tracy. 2021. Storm Water Management. Website: https://www.ci.tracy.ca.us/?navId=1679. Accessed April 15, 2020.

[3] GEI Consultants. 2015. Groundwater Assessment for Drought Emergency Conditions Requiring Groundwater to be Used as the Sole Source of Potable Water Supply (prepared for City of Tracy). August 10.

Aquifer Storage and Recovery (ASR) well and has been put into service as an ASR well as permitted by the RWQCB (see further discussion of ASR in Section 3.16, Utilities and Service Systems).

Basin Description

The following section describes the Tracy Subbasin, including its water-bearing formations, water levels, and water quality.

The Tracy Subbasin covers an area of approximately 373 square miles. It is bounded on the northwest by the Old River south to the tri-county confluence point and on the south by the Clifton Forebay where it then follows the Contra Costa-Alameda County line to the foothills of the Coastal Range mountains. The northeast boundary follows the San Joaquin River south to the San Joaquin County line with a slight jog to include the City of Lathrop on the west side of the river. The southern border of the Subbasin generally follows the San Joaquin-Stanislaus County line, with some irregular areas belonging to the Delta-Mendota Subbasin to the south. The western border follows the Coastal Range foothills from the San Joaquin-Stanislaus County line north to the Contra Costa-Alameda County line. The Subbasin is a mix of Delta islands (mostly agriculture) and waterways along with urban and agricultural communities on the southern edge.[4]

Adjacent to the Tracy Subbasin are the Eastern San Joaquin Subbasin to the east, the Delta-Mendota Subbasin to the south, and the Sacramento Valley Groundwater Basin to the north. The three subbasins, not including the Sacramento Valley Groundwater Basin, are part of the San Joaquin Valley Groundwater Basin. The San Joaquin River and one of its major west side tributaries, Corral Hollow Creek, provide drainage from the Tracy Subbasin. The San Joaquin River flows northward into the Sacramento and San Joaquin Delta and discharges into San Francisco Bay.

The Tracy Subbasin consists of continental deposits of Late Tertiary to Quaternary age. These deposits include the Tulare Formation, Older Alluvium, Flood Basin Deposits, and Younger Alluvium. The cumulative thickness of these deposits increases from a few hundred feet near the Coast Range foothills on the west to about 3,000 feet along the eastern margin of the Subbasin.

Each of these formations is described below.

- The Tulare Formation is exposed in the Coast Range foothills along the western margin of the subbasin and dips eastward toward the axis of the San Joaquin Valley. The Tulare Formation is approximately 1,400 feet thick and consists of semi-consolidated, poorly sorted, discontinuous deposits of clay, silt, and gravel. The Corcoran Clay occurs near the top of the Tulare Formation and confines the underlying freshwater deposits. The eastern limit of the Corcoran Clay is near the eastern boundary of the subbasin. The Tulare Formation is moderately permeable, with most of the larger agricultural, municipal, and industrial wells completed below the Corcoran Clay and capable of producing up to about 3,000 gpm. Smaller, domestic wells are typically completed above the Corcoran Clay, where the groundwater is often of poor quality. Specific yield values for the Tulare Formation in the San Joaquin Valley and Delta area range from 7 to 10 percent.

[4] GEI Consultants. 2020. Draft Tracy Subbasin Groundwater Sustainability Plan, Chapter 1-3. June.

- The Older Alluvium is approximately 150 feet thick and consists of loosely to moderately compacted sand, silt, and gravel deposited in alluvial fans during the Pliocene and Pleistocene eras. The Older Alluvium is widely exposed between the Coast Range foothills and the Delta and is moderately to locally highly permeable.
- The Flood Basin Deposits occur in the Delta portion of the subbasin and are the distal equivalents of the Tulare Formation and Older and Younger alluvial units. The Flood Basin Deposits consist primarily of silts and clays with occasional interbeds of gravel along the present waterways. Because of their fine-grained nature, the Flood Basin Deposits have low permeability and generally yield low quantities of water to wells. Occasional zones of fresh water are found in the Flood Basin Deposits, but they generally contain poor quality groundwater. The maximum thickness of the Flood Basin Deposits is about 1,400 feet.
- The Younger Alluvium includes those deposits that are currently accumulating, including sediments deposited in the channels of active streams, as well as overbank deposits and terraces of these active streams. The Younger Alluvium, consisting of unconsolidated silt, fine- to medium-grained sand, and gravel, is present to depths of less than 100 feet below ground surface (bgs) along the channel of Corral Hollow Creek. Sand and gravel zones in the Younger Alluvium are highly permeable and, where saturated, yield significant quantities of water to wells.

Groundwater Yield

In 2015, the City hired GEI Consultants (GEI) to perform an assessment on what the effect would be if the City were to pump between 16,000 and 22,000 acre-feet per year (AFY) for a single year to meet its demands during a drought emergency when no surface water supplies were available. The assessment considered potential impacts on groundwater levels, groundwater quality, and land subsidence. GEI's approach to this assessment was to estimate drawdown beneath the City, including drawdown caused by well interference, under scenarios wherein all of the City's wells were pumped for a single year at rates needed to meet the stated demands. Drawdown estimates were made using analytical methods and aquifer hydraulic property data from pumping tests performed at two of the City's wells. Results showed that the City does have capacity to pump its wells to meet these single dry year demands, but that drawdown in the City's wells and at locations proximate to the City would exceed that which has been historically observed. GEI estimated that groundwater levels would recover from their drawdown within approximately 7 years.[5]

Groundwater Quality

Groundwater quality in the Tracy Subbasin varies spatially and with depth. In general, the northern part of the Tracy Subbasin is characterized by a sodium water type, and the southern part of the Tracy Subbasin is characterized by calcium-sodium water type.[6] The northern part of the Tracy Subbasin is also characterized by a wide range of anionic water types, including bicarbonate;

[5] GEI Consultants. 2015. Groundwater Assessment for Drought Emergency Conditions Requiring Groundwater to be Used as the Sole Source of Potable Water Supply (prepared for City of Tracy). August 10.

[6] Sorenson, S.K. 1981. Chemical Quality of Groundwater in San Joaquin and Part of Contra Costa Counties, California, Water Resources Investigation 81-26, USGS.

chloride; and mixed bicarbonate-chloride. Major anions in the southern part of the Tracy Subbasin include sulfate-chloride and bicarbonate-chloride.

There is also a difference between the water quality in the water-bearing zones above the Corcoran Clay (termed the "semi-confined aquifer") and below the Corcoran Clay (termed the "confined aquifer"). Generally, the water quality of the confined aquifer is better than that of the semi-confined aquifer.[7]

Constituents present at elevated concentrations throughout the Tracy Subbasin in both the semi-confined and confined aquifers include chloride, nitrate, sulfate, and boron. Elevated chloride occurs in several areas near Tracy and along the San Joaquin River. Areas of elevated nitrate occur in the northwestern part of the Tracy Subbasin and in the vicinity of Tracy. Elevated boron occurs over a large portion of the Tracy Subbasin from south of Tracy extending to the northwest side of the Tracy Subbasin. Sulfate concentrations of up to 500 milligrams per liter (mg/L) have been detected in Tracy Subbasin groundwater. The groundwater near Tracy is considered to be very hard.[8]

The water quality conditions in groundwater represent conditions for source water, prior to treatment by the City and service to customers. One water quality concern that the City actively manages is total dissolved solids (TDS). The City's groundwater supply typically meets the primary maximum contaminant level (MCL) of 1,000 mg/L but frequently exceeds the secondary MCL of 500 mg/L. In 2019, the City's groundwater supply ranged from 386 to 876 mg/L of TDS, with an average concentration of 752 mg/L.[9] Because the TDS concentrations are significantly higher in the groundwater supply than in the City's other water supply sources, the City typically scales back its groundwater production from its estimated sustainable yield of 9,000 AFY, particularly in normal rainfall years in order to meet the secondary MCL in its overall water supply.

The City continues to rely on groundwater for peaking, and under drought conditions, it typically increases its groundwater production as needed to meet demands when surface water supplies become more limited. Groundwater quality is not expected to impact the reliability of available water supplies in the 2020 Urban Water Management Plan (2020 UWMP) planning horizon.[10]

Project Site

The project site is located within the City of Tracy's existing SOI and overlies the Tracy Subbasin. Groundwater on the project site was encountered at depths between 13.5 and 16 feet bgs level during soil boring testing.[11] The Tracy Alliance parcels contains three domestic wells. Neither the Suvik Farms or Zuriakat parcels include wells on-site.

[7] Stoddard & Associates. 1996. Groundwater Management Plan for the Northern Agencies in the Delta-Mendota Canal Service Area and a Portion of San Joaquin County. Revised April 1996.
[8] Ibid.
[9] EKI Environment & Water, Inc. 2021. 2020 Urban Water Management Plan for City of Tracy. June.
[10] EKI Environment & Water, Inc. 2021. 2020 Urban Water Management Plan for City of Tracy. Section 7.1.1.8. June.
[11] Terracon. 2019. Geotechnical Engineering Report, page i.

Stormwater Runoff

City of Tracy

Existing developed areas within the City generally drain from south to north toward Old River. Drainage facilities serving these areas include surface drainage via streets, underground storm drains, open channels and channel parkways, irrigation tailwater facilities that accept urban runoff, detention basins, pumping facilities, and temporary retention basins.

There are five stormwater runoff watersheds within the City's SOI: Eastside Channel Watershed, Westside Channel Watershed, Lammers Watershed, Mountain House Watershed, and Tracy Hills Watershed. Most the City's stormwater runoff discharges to one of four outfalls that eventually discharge to the Old River to the north.

Project Site

The project site is located within the Eastside Channel Watershed. The Eastside Channel Watershed is the easternmost watershed in the City's SOI and is roughly 9.8 square miles in overall area. The primary drainage feature within the Eastside Channel Watershed is the Eastside Channel that extends north from Eleventh Street to the Sugar Cut Outfall north of I-205, generally along the alignment of MacArthur Drive (Exhibit 3.10-1). The Eastside Channel is a channel parkway that includes landscaping and a linear bike path from Eleventh Street to a location about 0.75 mile to the north, where it becomes a non-landscaped open channel extending to the Sugar Cut Outfall. A second, significant drainage feature within the Eastside Channel Watershed is the City Outfall Channel that extends north from Grant Line Road about 0.25 mile west of MacArthur Drive and joins the Eastside Channel on the south side of I-205. The City Outfall Channel is an open channel that provides a drainage outfall for three trunk line storm drains in Grant Line Road, draining the downtown area and established development areas to the north of the downtown area, including the project site.[12]

Flooding and Inundation

City of Tracy

Flood Hazard Zone

Flood zones are determined by the Federal Emergency Management Agency (FEMA) and used to create Flood Insurance Rate Maps (FIRMs) that designate these zones. The most recent FIRMs for the City were updated on October 16, 2009. Most of the land within the City's municipal boundaries is included in Zone X, which is the designation for lands outside of the 100-year floodplain. Portions of the northern area of the City's SOI fall within FIRM Zone A, which indicates the 100-year flood plain. Lands within the FEMA-designated 100-year floodplain or Zone A are subject to mandatory flood insurance purchase as required by FEMA. Because the City participates in the National Flood Insurance Program (NFIP), it must require development permits to ensure that construction materials and methods will mitigate future flood damage. Non-residential structures must have their utility systems above the base flood elevation or be of flood-proof construction.[13]

[12] Stantec. 2012. Citywide Storm Drainage Master Plan (SDMP) (prepared for the City of Tracy), page 2.3.
[13] Design, Community, and Environment CE. 2005. City of Tracy General Plan Draft EIR (prepared for the City of Tracy), page 4.12-3.

Dam Failure Inundation

Some areas in the northern portion of the City's SOI have the potential to be affected by dam failure inundation such as from the San Luis Reservoir, New Melones, and New Exchequer dams.[14] The northern part of the NEI Specific Plan area would have the potential of flooding in the event of dam failure resulting from an earthquake.[15]

Tsunami and Seiche Inundation

A seiche is a wave generated in a bay or lake, which is analogous to the back-and-forth sloshing of water in a bathtub. Seiches can be caused by winds, changes in atmospheric pressure, underwater earthquakes, or landslides into the water. Tsunamis are large sea waves generated by earthquakes. These waves travel across the ocean at hundreds of miles an hour and can cause waves cresting tens of feet high. Since the City has no ocean frontage and is located inland across several mountain ranges from the ocean, the risk of a tsunami is very low. In addition, the City is not located near a large standing body of water that would be affected by a seiche.[16]

Project Site

The northern portion of the project site is in the 100-year floodplain of the San Joaquin River according to the FEMA Special Flood Hazard Area (SFHA) shown on the FEMA FIRM Panel 06077C0595 with an effective date of October 16, 2009.[17] Exhibit 3.10-2 illustrates the FEMA 100-year floodplain inundation area on and near the project site. The flood zone's designation for the SFHA is Zone AE (Elevation 24) for the area of concern, which is east of Paradise Road and south of I-205. The elevations are on North American Vertical Datum of 1988.

The Flood Protection Technical Memorandum used the 2017 Central Valley Flood Protection Plan, hydrologic information contained therein, and hydraulic modeling to evaluate several scenarios for floodplain impacts. The scenarios evaluated were for 2017 conditions and 2067 conditions, which were considered to evaluate resiliency to climate change. To provide a reasonable worst-case scenario, the models considered likely levee breaches to determine maximum 200-year flood elevation levels on the project site. The closest evaluated levee breach is on the western bank of the Paradise Cut, approximately 0.5 mile to the south of I-5 and 4.13 miles east of the project site.

The Flood Protection Technical Memorandum also evaluated the proposed project's on-site stormwater detention basin because the proposed project would locate this basin at the lowest point on the site, which is within a 100-year floodplain. The project site currently drains into a ditch that discharges into a tributary to Tom Pain Slough. The City is requiring the proposed project's on-site stormwater detention basin that would serve the proposed project to be located at the project site's low point; and for a pump to be included in order to allow discharge into Detention Basin (DET), DET NEI, which would be pumped into the City's Eastside Channel.)

[14] Design, Community, and Environment CE. 2005. City of Tracy General Plan Draft EIR (prepared for the City of Tracy), page 4.12-3.
[15] Design, Community, and Environment CE. 2006. City of Tracy General Plan Amendment to the Draft EIR (prepared for the City of Tracy), page 104.
[16] Design, Community, and Environment CE. 2005. City of Tracy General Plan Draft EIR (prepared for the City of Tracy), page 4.12-4.
[17] Wood Rodgers. 2021. Technical Memorandum: Flood Protection at the Tracy Alliance Project Site. January 13.

Based on the foregoing analysis, the project site could be inundated with flood water associated with the failure of the San Luis Reservoir and the New Melones Dam.[18]

3.10.3 - Regulatory Framework

Federal

Clean Water Act

The Clean Water Act (CWA) (33 United States Code [USC] § 1251, *et seq*.) is the major federal legislation governing the water quality aspects of construction and operation of the proposed project. The CWA establishes the basic structure for regulating discharges of pollutants into waters of the United States (not including groundwater) and waters of the State. The objective of the CWA is "to restore and maintain the chemical, physical, and biological integrity of the nation's waters." The CWA establishes the basic structure for regulating the discharge of pollutants into waters of the United States.

The CWA authorizes the United States Environmental Protection Agency (EPA) to implement pollution control programs. Under the CWA, it is unlawful for any person to discharge any pollutant from a point source into navigable waters, unless a National Pollutant Discharge Elimination System (NPDES) permit is obtained. In addition, the CWA requires each state to adopt water quality standards for receiving water bodies and to have those standards approved by the EPA. Water quality standards consist of designated beneficial uses for a particular receiving water body (e.g., wildlife habitat, agricultural supply, fishing), along with water quality objectives necessary to support those uses.

Responsibility for protecting water quality in California resides with the State Water Board and nine RWQCBs. The State Water Board establishes Statewide policies and regulations for the implementation of water quality control programs mandated by federal and State water quality statutes and regulations. The RWQCBs develop and implement water quality control plans (basin plans) that consider regional beneficial uses, water quality characteristics, and water quality problems. Water quality standards applicable to the proposed project are listed in the Central Valley RWQCB Basin Plan.

Section 303—Water Quality Standards and Total Maximum Daily Loads

Section 303(c)(2)(b) of the CWA requires states to adopt water quality standards for all surface waters of the United States based on the water body's designated beneficial use. Where multiple uses exist, water quality standards must protect the most sensitive use. Water quality standards are typically numeric, although narrative criteria based on biomonitoring methods may be employed where numerical standards cannot be established or where they are needed to supplement numerical standards.

CWA Section 303(d) requires states and authorized Native American tribes to develop a list of water quality–impaired segments of waterways. The list includes waters that do not meet water quality standards necessary to support a waterway's beneficial uses even after the minimum required levels

[18] Design, Community, and Environment CE. 2005. City of Tracy General Plan Draft EIR (prepared for the City of Tracy), Figure 4.12-2.

of pollution control technology have been installed. Listed water bodies are to be priority ranked for development of a Total Maximum Daily Load (TMDL). A TMDL is a calculation of the total maximum daily load (amount) of a pollutant that a water body can receive daily and still safely meet water quality standards. The TMDLs include waste load allocations for urban stormwater runoff as well as municipal and industrial wastewater discharges, with allocations apportioned for individual MS4s and wastewater treatment plants, including those in the City. For stormwater, load reductions would be required to meet the TMDL waste load allocations within the 20 years required by the TMDLs.

The State Water Board, RWQCBs, and EPA are responsible for establishing TMDL waste load allocations and incorporating approved TMDLs into water quality control plans, NPDES permits, and Waste Discharge Requirements (WDRs) in accordance with a specified schedule for completion. The Central Valley RWQCB develops TMDLs for the City.

Section 401—Water Quality Certification

Section 401 of the CWA requires compliance with State water quality standards for actions within State waters. Under CWA Section 401, an applicant for a Section 404 permit (to discharge dredged or fill material into waters of the United States) must first obtain a certificate from the appropriate agency stating that the fill is consistent with the State's water quality standards and criteria. In California, the State Water Board delegates authority to either grant water quality certification or waive the requirements to the nine RWQCBs. The Central Valley RWQCB is responsible for the project site.

Section 402—National Pollution Discharge Elimination System Permits

The RWQCBs administer the NPDES stormwater permitting program, under Section 402(d) of the federal CWA, on behalf of the EPA. The objective of the NPDES program is to control and reduce levels of pollutants in water bodies from discharges of municipal and industrial wastewater and stormwater runoff. CWA Section 402(d) establishes a framework for regulating nonpoint-source stormwater discharges (33 USC 1251). Under the CWA, discharges of pollutants to receiving water are prohibited unless the discharge complies with an NPDES permit. The NPDES permit specifies discharge prohibitions, effluent limitations, and other provisions, such as monitoring deemed necessary to protect water quality based on criteria specified in the National Toxics Rule (NTR), the California Toxics Rule (CTR), and a basin plan.

Discharge prohibitions and limitations in an NPDES permit for wastewater treatment plants are designed to maintain public health and safety, protect receiving water resources, and safeguard the water's designated beneficial uses. Discharge limitations typically define allowable effluent quantities for flow, biochemical oxygen demand, total suspended matter, residual chlorine, settleable matter, total coliform, oil and grease, pH, and toxic pollutants. Limitations also typically encompass narrative requirements regarding mineralization and toxicity to aquatic life. Under the NPDES permits issued to the City/County to operate the treatment plants, the City/County is required to implement a pretreatment program. This program must comply with the regulations incorporated in the CWA and the General Pretreatment Regulations (Code of Federal Regulations [CFR] Title 40, Part 403 [40 CFR 403]).

Section 404—Discharge of Dredged or Fill Materials Into Jurisdictional Waters

Section 404 of the CWA regulates temporary and permanent fill and disturbance of wetlands and waters of the United States. Under Section 404, the discharge (temporary or permanent) of dredged or fill material into waters of the United States, including wetlands, typically must be authorized by the United States Army Corps of Engineers (USACE) through either the Nationwide Permit (general categories of discharges with minimal effects) or the Individual Permit.

River and Harbors Act Section 10

Section 10 of the Rivers and Harbors Act of 1899 requires that regulated activities conducted below the ordinary high-water elevation of navigable waters of the United States be approved and permitted by the USACE. Regulated activities include the placement or removal of structures, work involving dredging, disposal of dredged material, filling, excavation, or any other disturbance of soils/sediments or modification of a navigable waterway. Navigable waters of the United States are those waters of the United States that are subject to the ebb and flow of the tide shoreward to the mean high-water mark and/or are presently used, or have been used in the past, or may be susceptible to use to transport interstate or foreign commerce. Section 10 also regulates tributaries and backwater areas that are associated with navigable waters of the United States and are located below the ordinary high-water elevation of the adjacent navigable waterway.

A project proponent can apply for a permit/letter of permission for work regulated under Section 404 (CWA) and Section 10 (Rivers and Harbors Act) by completing and submitting one application form. An application for a USACE permit will serve as an application for both Section 404 and Section 10 permits.

Federal Antidegradation Policy

The federal antidegradation policy is designed to protect existing water uses, water quality, and national water resources. The federal policy directs states to adopt a statewide policy that includes the following primary provisions:

- Existing instream uses and the water quality necessary to protect those uses shall be maintained and protected.
- Where existing water quality is better than necessary to support fishing and swimming conditions, that quality shall be maintained and protected unless the state finds that allowing lower water quality is necessary for important local economic or social development.
- Where high-quality waters constitute an outstanding national resource, such as waters of national and state parks, wildlife refuges, and waters of exceptional recreational or ecological significance, that water quality shall be maintained and protected.

National Toxics Rule and California Toxics Rule

In 1992, the EPA promulgated the NTR under the CWA to establish numeric criteria for priority toxic pollutants for 14 states to bring all states into compliance with the requirements of CWA Section 303(c)(2)(B). The NTR established water quality standards for 42 pollutants not covered under California's Statewide water quality regulations at that time. As a result of the court-ordered

revocation of California's Statewide basin plans in September 1994, the EPA initiated efforts to promulgate additional federal water quality standards for California. In May 2000, the EPA issued the CTR, which includes all the priority pollutants for which the EPA has issued numeric criteria not included in the NTR.

Executive Order 11988

Executive Order 11988, "Floodplain Management," directs all federal agencies to avoid, to the extent possible, long- and short-term adverse impacts of occupancy and modification of floodplains, and to avoid supporting development in a floodplain either directly or indirectly wherever there is a practicable alternative. Compliance requirements are outlined in 23 Code of Federal Regulations 650, Subpart A, "Location and Hydraulic Design of Encroachment on Floodplains."

If a project involves significant encroachment into the floodplain, the final environmental document must include:

- The reasons why the proposed action must be located in the floodplain,
- Alternatives considered and the reasons they were not practicable, and
- A statement indicating whether the action conforms to applicable state or local floodplain protection standards.

National Flood Insurance Act and Flood Disaster Protection Act

The National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973 were enacted to reduce the need for flood protection structures and limit disaster relief costs by restricting development in floodplains. FEMA, established in 1979, is responsible for predicting hazards from flooding events and forecasting the level of inundation under various conditions. As part of its duty to develop standards for delineating fluvial and coastal floodplains, FEMA provides information on FIRMs about the potential for flood hazards and inundation and, where appropriate, designates regions as SFHAs. SFHAs are defined as areas that have a 1 percent chance of flooding in a given year.

FEMA also administers the NFIP, a federal program that enables property owners in participating communities to purchase insurance as protection against flood losses in exchange for state and community floodplain management regulations that reduce future flood damages.

State

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act of 1969 (Porter-Cologne Act) is California's statutory authority for the protection of water quality. Under the Porter-Cologne Act, the State must adopt water quality policies, plans, and objectives that protect the State's waters for the use and enjoyment of the people. Regional authority for planning, permitting, and enforcement is delegated to the nine RWQCBs. The RWQCBs are required to formulate and adopt basin plans for all areas in the region and establish water quality objectives in the plans. The Porter-Cologne Act sets forth the obligations of the State Water Board and RWQCBs to adopt and periodically update basin plans. The Central Valley RWQCB is responsible for the project site.

Basin plans are the regional water quality control plans required by both the CWA and the Porter-Cologne Act that establish beneficial uses, water quality objectives, and implementation programs for each of the nine regions in California. The Porter-Cologne Act also requires waste dischargers to notify the RWQCBs of their activities by filing reports of waste discharge and authorizes the State Water Board and RWQCBs to issue and enforce WDRs, NPDES permits, CWA Section 401 water quality certifications, or other approvals. The RWQCBs are also authorized to issue waivers to reports of waste discharge and WDRs for broad categories of "low threat" discharge activities that have minimal potential to cause adverse water quality effects when implemented according to prescribed terms and conditions.

California Code of Regulations (Wetlands and Waters Definition)

The State Water Board indicates that no single accepted definition of wetlands exists at the State level, and that the RWQCBs may have different requirements and levels of analysis regarding the issuance of water quality certifications. Generally, an area is a wetland if, under normal circumstances:

(1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both;

(2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and

(3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation.

Under California State law, waters of the State mean "any surface water or groundwater, including saline waters, within the boundaries of the state." As such, water quality laws apply to both surface water and groundwater. After the U.S. Supreme Court decision in *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers* (53 USC 159), the Office of Chief Counsel of the State Water Board released a legal memorandum confirming the State's jurisdiction over isolated wetlands. The memorandum stated that under the Porter-Cologne Act, discharges to wetlands and other waters of the State are subject to State regulation, and this includes isolated wetlands. In general, the State Water Board regulates discharges to isolated waters in much the same way as it does for waters of the United States, using the Porter-Cologne Act rather than CWA authority.

National Pollutant Discharge Elimination System Stormwater Permit

The NPDES permits all involve similar processes, which include submitting notices of intent for discharging to water in areas under the Central Valley RWQCB's jurisdiction and implementing Best Management Practices (BMPs) to minimize those discharges. The Central Valley RWQCB may also issue site-specific WDRs, or waivers to WDRs, for certain waste discharges to land or waters of the State.

Construction Activity

The State Water Board stormwater general permit for construction activity (Order 2009-009-DWQ, as amended by Order Nos. 2010-0014-DWQ and 2012-0006-DWQ) applies to all construction activities that would disturb 1 acre of land or more. Construction activities subject to the General

Construction Permit include clearing, grading, stockpiling, and excavation. Dischargers are required to eliminate or reduce non-stormwater discharges to storm sewer systems and other waters.

Through the NPDES and WDR processes, the State Water Board seeks to ensure that the conditions at a project site during and after construction do not cause or contribute to direct or indirect impacts on water quality (i.e., pollution and/or hydromodification) upstream and downstream. To comply with the requirements of the Construction General Permit, a project applicant must file a notice of intent with the State Water Board to obtain coverage under the permit; prepare a Storm Water Pollution Prevention Plan (SWPPP); and implement inspection, monitoring, and reporting requirements appropriate to the project's risk level as specified in the SWPPP. The SWPPP includes a site map, describes construction activities and potential pollutants, and identifies BMPs that will be employed to prevent soil erosion and discharge of other construction-related pollutants that could contaminate nearby water resources, such as petroleum products, solvents, paints, and cement. The permit also requires the discharger to consider using post-construction permanent BMPs that will remain in service to protect water quality throughout the life of the project. All NPDES permits also have inspection, monitoring, and reporting requirements.

Project sites served by the combined sewer system are not required to obtain coverage under the NPDES Construction General Permit.

Industrial General Stormwater Permit

The Statewide stormwater NPDES permit for general industrial activity (Order 2014-0057-DWQ, superseding Order 97-03-DWQ) regulates discharges associated with 10 broad categories of industrial activities, such as operation of wastewater treatment works and recycling facilities. The industrial general permit requires the implementation of Best Available Technology Economically Achievable and Best Conventional Pollutant Control Technology to achieve performance standards. The permit also requires development of a SWPPP that identifies the site-specific sources of pollutants and describes the measures at the facility applied to reduce stormwater pollution. A monitoring plan is also required.

Stormwater

In November 1990, the EPA published regulations establishing NPDES permit requirements for municipal and industrial stormwater discharges. Phase I of the permitting program applied to municipal discharges of stormwater in urban areas where the population exceeded 100,000 persons. Phase II of the NPDES stormwater permit regulations, which became effective in March 2003, required that NPDES permits be issued for construction activity for projects disturbing 1–5 acres. Phase II of the municipal permit system (known as the NPDES General Permit for Small MS4s, Order No. 2003-0005-DWQ as amended by 2013-0001-DWQ) required small municipalities of fewer than 100,000 persons to develop stormwater management programs. This permit authorizes discharges of stormwater and some categories of non-stormwater that are not "significant contributors of pollutants."

Provision C.3 in the Municipal Regional Permit requires site designs for new developments and redevelopments to minimize the area of new roofs and paving and treat runoff, and in some cases, control the rates and durations of site runoff. Where feasible, pervious surfaces should be used

instead of paving so that runoff can infiltrate to the underlying soil. Runoff should be dispersed to landscaping where possible. Remaining runoff from impervious areas must be treated using bioretention. In some developments, the rates and durations of site runoff must also be controlled.

The C.3 requirements are separate from, and in addition to, requirements for erosion and sediment control and for pollution prevention measures during construction. In addition, project applicants must execute agreements to allow municipalities to verify that stormwater treatment and flow-control facilities that are approved as part of new development are maintained in perpetuity.

California Toxics Rule and State Implementation Policy

The CTR, presented in 2000 in response to requirements of EPA's NTR, establishes numeric water quality criteria for approximately 130 priority pollutant trace metals and organic compounds. The CTR criteria are regulatory criteria adopted for inland surface waters, enclosed bays, and estuaries in California that are on the CWA Section 303(c) list for contaminants. The CTR includes criteria for the protection of aquatic life and human health. Human health criteria (water- and organism-based) apply to all waters with a municipal and domestic water supply beneficial use designation as indicated in the basin plans. The Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California, also known as the State Implementation Policy, was adopted by the State Water Board in 2000. It establishes provisions for translating CTR criteria, NTR criteria, and basin plan water quality objectives for toxic pollutants into:

- NPDES permit effluent limits,
- Effluent compliance determinations,
- Monitoring for 2,3,7,8-tcdd (dioxin) and its toxic equivalents,
- Chronic (long-term) toxicity control provisions,
- Site-specific water quality objectives, and
- Granting of effluent compliance exceptions.

The goal of the State Implementation Plan is to establish a standardized approach for permitting discharges of toxic effluent to inland surface waters, enclosed bays, and estuaries throughout the State.

Sustainable Groundwater Management Act

On August 29, 2014, the California Legislature passed comprehensive groundwater legislation contained in Senate Bill (SB) 1168 and SB 1319, and Assembly Bill (AB) 1739, which are collectively referred to as the Sustainable Groundwater Management Act (SGMA). This legislation was signed by Governor Brown on September 16, 2014, and it became effective on January 1, 2015. The legislative intent of SGMA is to provide sustainable management of groundwater basins, enhance local management of groundwater, establish minimum standards for sustainable groundwater management, and provide local groundwater agencies with the authority and the technical and financial assistance necessary to sustainably manage groundwater.

The Tracy Subbasin is designated by the State as a medium priority basin. As such, the Tracy Subbasin is subject to the requirements of SGMA, which include the formation of a one or more Groundwater Sustainability Agencies (GSAs) and the development and implementation of one or

more Groundwater Sustainability Plans (GSPs) by January 31, 2022.If the statutory deadline is not met for GSP development and/or implementation, the State has the authority to intervene and manage groundwater within non-compliant subbasins. SGMA requires that adopted GSPs result in sustainable groundwater management which avoids undesirable results.

Originally, the Tracy Subbasin contained areas of San Joaquin, Contra Costa, and Alameda Counties. The Banta-Carbona Irrigation District (BCID), Byron-Bethany Irrigation District (BBID), City of Tracy, City of Lathrop, Stewart Tract, West Side Irrigation District, and San Joaquin County are GSAs within the new Tracy Subbasin. The GSAs recognize that developing and adopting a single GSP for the subbasin would be the most efficient way of achieving sustainability and preventing State intervention into local groundwater management.

Working with San Joaquin County and the Tracy Subbasin GSAs, a Memorandum of Agreement (MOA) has been developed for the development of the San Joaquin County GSP for the Tracy Subbasin. Under the terms of the MOA, San Joaquin County is designated as the lead entity to enter into an agreement with the City of Brentwood to coordinate the allocation of grant funds.

The City, BCID, BBID,[19] City of Lathrop, San Joaquin County, and Stewart Tract are the six GSAs formed in the Tracy Subbasin and are working cooperatively to develop a single GSP. The Tracy Subbasin GSAs were awarded a California Department of Water Resources (DWR) grant to develop the GSP. Pursuant to the Grant Agreement, each GSA designated an appointee to form the GSP Coordination Committee, and San Joaquin County was appointed as the Grant Administrator. The Grant Administrator or any two appointees may call meetings of the GSP Coordination Committee as needed in the GSP development process.

The GSP for the Tracy Subbasin has been completed and is currently in the process of being adopted by each of the GSAs. The Tracy City Council adopted the Final GSP on November 16, 2021. As one of the six GSAs that are managing the Tracy Subbasin, the City has been actively involved in GSP development activities and will continue to be involved throughout SGMA implementation. The City has one appointee (and an alternate) on the Tracy Subbasin GSP Coordination Committee, which meets quarterly, and the Technical Committee, which meets monthly.

Regional

Central Valley Regional Water Quality Control Plan

The Central Valley RWQCB implements the San Joaquin/Sacramento Rivers Basin Plan, a master policy document for managing water quality in the region. The Basin Plan establishes beneficial water uses for waterways and water bodies within the region. The San Joaquin River Basin Plan has jurisdiction over the City.[20]

[19] West Side Irrigation District officially merged with Byron-Bethany Irrigation District in September 2020, which occurred after the release of the draft GSP chapters.

[20] Central Valley Regional Water Quality Control Board (Central Valley RWQCB). 2018. The Water Quality Control Plan (Basin Plan) for the California Regional Water Quality Control Board Central Valley Region. Fifth Edition. Website: https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr_201805.pdf. Accessed January 29, 2021

Groundwater Management Plan for the Northern Agencies in the Delta-Mendota Canal Service Area and a Portion of San Joaquin County

In 1996, the City adopted the Northern Delta-Mendota Canal Groundwater Management Plan (GMP) pursuant to Water Code sections 10750 *et seq*., also known as AB 3030. The plan was developed in coordination with other Delta-Mendota Canal northern agencies, including: BCID, BBID, Del Puerto Water District, Patterson Irrigation District, West Stanislaus Irrigation District, West Side Irrigation District, San Joaquin County, and the City of Tracy. The 1996 GMP included information on groundwater levels and quality, conjunctive management of groundwater and surface water resources, and measures to protect groundwater resources within the plan area.

In 2011, the GMP was revised to include additional information to comply with new provisions adopted by the State Legislature which included:

- The DWR to establish a priority schedule for monitoring groundwater basins and elevation reports as well as issuing recommendations to local entities to improve water quality.
- The State to allow local entities to determine best methods of groundwater monitoring to meet local demand.
- The DWR to implement groundwater monitoring if local agencies fail to do so. This will result in loss of eligibility for State grant funds.

Tracy Regional Groundwater Management Plan (Regional Groundwater Management Plan)

In addition to participating in the development of the Tracy Subbasin GMP, in 2005, the City was awarded a DWR grant for approximately $185,000 to prepare a Tracy Regional Groundwater Management Plan (Tracy Regional GMP) for the portion of the Tracy Subbasin that underlies the City. The Tracy Regional GMP was completed in March 2007. A key objective of the Tracy Regional GMP was the development of Basin Management Objectives (BMOs) for groundwater levels, groundwater quality, and land subsidence in the region.

Local

Tracy General Plan

Public Facilities and Services Element

The General Plan Public Services and Facilities Element sets forth the following goals, objectives, and policies that are relevant to hydrology and water quality:

Goal PF-7: Meet all wastewater treatment demands and federal and State regulations.

Objective PF-7.1: Collect, transmit, treat, and dispose of wastewater in ways that are safe, sanitary, and environmentally acceptable.

Policies

Policy P1 The City shall maintain wastewater conveyance, treatment, and disposal infrastructure in good working condition in order to supply municipal sewer service to the City's residents and businesses.

Policy P2 The City shall expand the existing wastewater treatment plant to the extent possible or pursue a single new west side facility instead of building new facilities at multiple locations to meet future needs.

Policy P3 New habitable structures located within the city limits shall connect to the public wastewater collection system.

Objective PF-7.2: Pursue safe, environmentally-responsible and affordable methods of disposing of treated effluent.

Policies

Policy P1 Areas used for the land application of treated effluent may also be used for agriculture.

Objective PF-7.3: Promote coordination between land use planning and wastewater conveyance, treatment, and disposal.

Policies

Policy P1 Wastewater collection and treatment facilities shall be designed to serve expected buildout of the areas served by these facilities but constructed in phases to reduce initial and overall costs.

Policy P2 The City shall construct new wastewater trunk lines as needed. Individual development projects shall be responsible for construction of all collection lines other than trunk lines.

Policy P3 The approval of new development shall be conditioned on the availability of sufficient capacity in the wastewater collection and treatment system to serve the project.

Policy P4 "Package" treatment plants shall not be allowed in the City.

Policy P5 New development shall fully fund the cost of new wastewater treatment and disposal facilities.

Objective PF-7.4: Pursue innovative solutions for wastewater treatment and disposal that are compatible with the environment.

Policies

Policy P1 New wastewater treatment plants should be located to allow for distribution of recycled water to application areas by gravity flow where feasible.

Policy P3 Biosolid disposal shall be managed so as to minimize impacts to the environment and public health.

Policy P4 The City shall establish wastewater treatment demand reduction standards for new development and redevelopment to reduce per capita and total demand for wastewater treatment.

Goal PF-8: Protect property from flooding

Objective PF-8.1: Collect, convey, store, and dispose of stormwater in ways that provide an appropriate level of protection against flooding, account for future development, and address applicable environmental concerns.

Policies

Policy P1 Stormwater infrastructure shall be maintained in good condition.

Policy P2 Stormwater infrastructure shall minimize local flooding by attaining capacity that conforms with the Storm Drainage Master Plan and City Design Standards.

Policy P3 New permanent stormwater infrastructure shall be designed to serve dual purposes to the extent possible. This includes the following:

- Drainage facilities integrated into recreation corridors with bike paths, sidewalks, and landscaping.
- Drainage channels integrated with transportation and environmental corridors.
- Stormwater detention basins shall incorporate active and passive recreation areas where feasible. These areas shall not count toward parks dedication requirements.

Policy P4 When temporary retention or detention facilities are no longer needed after an outfall system is constructed, the sites shall be backfilled and disconnected from the storm drainage system.

Policy P5 The City shall ensure a fair and equitable distribution of costs for stormwater system upgrades, expansion and maintenance.

Policy P6 Design of storm drainage facilities shall be consistent with State and federal requirements, including NPDES requirements.

Policy P7 Planning for stormwater facilities should consider possible future retrofitting needs associated with changing regulations pertaining to stormwater quality, including NPDES requirements.

Objective PF-8.2: Provide effective storm drainage facilities for development projects.

Policies

Policy P1 To the extent feasible, new development projects shall incorporate methods of reducing storm runoff within the project to reduce the requirements for downstream storm drainage infrastructure and improve stormwater quality.

Policy P2 New storm drainage facilities shall meet adopted City standards, including the standards and policies contained in the Storm Water Management Plan, the Storm Drainage Master Plan, and the Parkways Design Manual.

Policy P3 New development projects shall only be approved if necessary, stormwater infrastructure is planned and is in compliance with environmental regulations.

Policy P4 If sufficient downstream stormwater infrastructure has not yet been constructed, new development projects shall be required to implement temporary on-site retention facilities in conformance with City standards.

Safety Element

The General Plan Safety Element contains the following goals, objectives, policies, and actions to reduce impacts related to flood hazards.

Goal SA-2: A reduction of hazards related to flooding or inundation

Objective SA-2.1: Minimize flood risks to development.

Policies

Policy P1 Development shall only be allowed on lands within the 100-year flood zone, if it will not:

- Create danger to life and property due to increased flood heights or velocities caused by excavation, fill, roads and intended use.
- Create difficult emergency vehicle access in times of flood.
- Create a safety hazard due to the unexpected heights, velocity, duration, rate of rise and sediment transport of the flood waters expected at the site.
- Create excessive costs in providing governmental services during and after flood conditions, including maintenance and repair of public facilities.
- Interfere with the existing waterflow capacity of the floodway.
- Substantially increase erosion and/or sedimentation.
- Contribute to the deterioration of any watercourse or the quality of water in any body of water.

Policy P2 Public and private development in the 100-year flood zones shall have the lowest floor elevated at least 1 foot above the base flood level, or be of flood-proof construction.

Policy P3 The City shall prevent the construction of flood barriers within the 100-year flood zone that divert flood water or increase flooding in other areas.

Policy P4 Property owners within the 100-year floodplain are encouraged to purchase National Flood Insurance, which reduces the financial risk from flooding and mudflows.

Objective SA-2.2: Maintain a high level of preparedness in the event of flooding.

Policies

Policy P1 The City shall maintain operational contingency plans for essential public facilities in the event of flooding.

Policy P2 The City shall locate, when feasible, new essential public facilities outside of flood hazard zones, including hospitals and health care facilities, emergency shelters, fire stations, emergency command centers, and emergency communications facilities, or identify construction or other methods to minimize damage if these facilities are located in flood hazards zones.

Policy P3 The City shall continue to work with other public agencies responsible for flood protection, including the Central Valley Flood Protection Board, the San Joaquin Office of Emergency Services, and the US Army Corps of Engineers.

Northeast Industrial Specific Plan

Storm Drainage

The distribution, location, and extent of the storm drainage improvements within the NEI Specific Plan area shall be subject to the NEI Phase I Finance and Implementation Plans, dated December 1999 (Resolution Numbers 99- 462 and 99-485), April 1, 2003 (Resolution Number 2003-100), January 4, 2005 (Resolution Number 2005-023), February 21, 2006 (Resolution Number 2006-069), and April 15, 2008 (Resolution Number 2008-065), and the NEI Phase II Finance and Implementation Plans, dated January 2006 (Resolution Number 2006-038) and January 15, 2008 (Resolution Number 2008-010). All future storm drainage improvements will also be subject to any revisions or updates to the NEI Finance and Implementation Plans, and subject to the development impact fee as established in those plans.

Municipal Code

Chapter 9.52 Floodplain Regulations

This chapter addresses floodplain regulations and requirements for new development and construction within Flood Hazard Areas delineated by FIRMs published by FEMA.

Chapter 11.34 Stormwater Management and Discharge

Chapter 11.34 aims to protect water quality by reducing pollutants in urban stormwater discharges to the maximum extent practicable. The Municipal Code requires new development to acquire a permit prior to construction, which includes requirements identifying BMPs for any activity, operation, or facility that may cause or contribute to pollution or contamination of stormwater. In addition, the Municipal Code requires applicants to demonstrate intent to comply with the permit, submit of a SWPPP, and make the SWPPP available for inspection and review by a City inspector.

3.10.4 - Impacts and Mitigation Measures

Significance Criteria

The City is using Appendix G of the State California Environmental Quality Act (CEQA) Guidelines as thresholds of significance for the proposed project. According to CEQA Guidelines Appendix G Environmental Checklist, to determine whether impacts related to hydrology and water quality are significant environmental effects, the following questions are analyzed and evaluated. Would the proposed project:

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the proposed project may impede sustainable groundwater management of the basin?

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
   i) Result in substantial erosion or siltation on- or off-site;
   ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or 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?

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

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

Approach to Analysis

Impacts related to hydrology and water quality were determined by reviewing information regarding regional and local hydrology, climate, topography, and geology contained in the Tracy General Plan and General Plan EIR, Central Valley RWQCB Basin Plan, FEMA FIRMs, plan-specific utility plans, and the Flood Protection Technical Memorandum prepared for the project site.

The evaluation of impacts is based on a comparison of existing conditions to anticipated conditions once the proposed project is constructed and operational, such as changes in impervious area, as well as facilities potentially located within flood zones. Specifically, the impact evaluation focuses on the effect of the proposed project on surface and groundwater quality, groundwater supply, and drainage (in terms of erosion, siltation, flooding, stormwater system exceedance, and polluted runoff). Water quality conditions are compared with applicable water quality standards and WDRs by identifying potential contaminants and pollution pathways, amount of impervious area, and runoff treatment requirements.

The Flood Protection Technical Memorandum evaluated impacts to flooding by determining the 200-year flood elevation on the project site and analyzed any criteria (including, among others, finish floor elevations of structures, which would be required to reside above the 100/200 year flood elevation) that would be appropriate for the proposed structures within the Tracy Alliance project and the proposed project's on-site stormwater detention basin. Finally, as part of the analysis, inundation and flooding on the project site are assessed by considering the potential failure of levees along the San Joaquin River and reviewing potential inundation zone elevations relative to the final grade elevations of planned facilities and features for each project.

Impact Evaluation

Surface and Groundwater Quality

Impact HYD-1:	**The proposed project could violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.**

Construction

Construction activity for the proposed project would expose soils on the project site to potential erosion, and to potential pollutants related to the use of construction equipment. Runoff from graded areas could carry eroded soils and pollutants into the storm drainage systems and into the Old River and eventually the San Joaquin River, increasing sedimentation, degrading downstream water quality, and potentially affecting the groundwater table. This would represent a potentially significant construction impact related to surface and groundwater quality.

Because the construction would disturb more than one acre of land, the proposed project would be required to comply with all applicable laws and regulations including the terms of the Construction General Permit, which require the preparation and implementation of a SWPPP that includes BMPs to ensure reduction of pollutants from construction activities that could potentially enter surface waters as required by MM HYD-1a. Additionally, implementation of the SWPPP would also prevent pollutants from entering the Tracy Subbasin by requiring the inclusions of BMPs, such as the use of biofiltration swales and bioretention basins, that would prevent pollutants from moving off-site through the treatment of stormwater on-site. The intention would be to keep all products of erosion from moving off-site into receiving waters by treatment on-site. Furthermore, compliance with Chapter 11.34 of the Municipal Code would ensure that each applicant, in connection with its respective individual development proposal, implements the BMPs contained in the relevant SWPPP which would be verified by a City inspector during the construction period.

Although construction activities have the potential to generate increased sedimentation, compliance with applicable policies, laws and regulations would minimize the potential to degrade water quality in downstream water bodies to the maximum extent feasible. As a result, construction-related project impacts would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. Therefore, impacts in this regard related to surface and groundwater and respective water quality would be less than significant.

Operation

The project site is in an urbanizing area characterized by agricultural and light industrial uses with a mix of impervious and pervious surfaces. The proposed project would result in new impervious surfaces compared to existing conditions that would in turn generate stormwater runoff, which may carry pollutants such as pesticides, fertilizers, and deposits of fluids and metals from motor vehicles into the Old River or allow seepage of such pollutants into the associated groundwater table. This would represent a potentially significant operational impact related to surface and groundwater quality.

The proposed project would be subject to applicable C.3 requirements, which includes implementation of a Storm Water Management Plan (SWMP) applicable to the proposed project's design and post-project operation and maintenance. Two fundamental components are associated with the SWMP: (1) treatment for pollutants collected in stormwater using Low Impact Development (LID) measures, and (2) no net increase in the erosion potential of the receiving stream over the pre-project (existing) condition. All LID treatment measures would be required to be designed in accordance with applicable engineering criteria in the Multi-Agency Post-Construction Stormwater

Standards Manual. Implementation of the SWMP would require the preparation of a clearly defined Operations and Maintenance (O&M) Plan to ensure that installed stormwater treatment measure(s) and hydromodification management control(s)[21] are inspected and properly operated and maintained for the life of the project. The preparation, approval, and implementation of a SWMP is included as Mitigation Measure (MM) HYD-1b.

The primary treatment control measure would be the proposed project's on-site stormwater detention basin with a pump station that would be owned and managed by the City. The proposed project's on-site stormwater detention basin would be in the northern portion of the project site, along the terminus of California Avenue, and would connect to the City's NEI detention basin west of the project site (see Exhibit 3.10-1).[22] The proposed project's on-site stormwater detention basin would be sized to accommodate the stormwater discharge for the Tracy Alliance parcels prior to the start of operations on the Tracy Alliance parcels. Following Phase 1, each subsequent applicant for its respective individual development proposal within the project site would be required to confirm that the proposed project's on-site stormwater detention basin and bioretention treatment areas could accommodate project flows to the satisfaction of the City and that post-development stormwater flow rates would not substantially exceed predevelopment rates pursuant to the applicable C.3 requirements. The proposed project's on-site stormwater detention basin would be required to comply with applicable provisions of the Multi-Agency Post-Construction Stormwater Standards Manual which identifies BMPs to control the potential pollutant load of stormwater runoff. Additionally, Chapter 11.32 of the Municipal Code requires each applicant for its respective individual development proposal within the project site to pay applicable stormwater impact fees in connection with their respective development proposals, which would ensure the operation, maintenance, and replacement of existing and future stormwater facilities. Each applicant for its respective individual development proposal within the project site would be required to prepare a clearly defined O&M Plan in connection with its respective individual development proposal to ensure that installed stormwater treatment measures and hydromodification management controls are inspected and properly operated and maintained for the life of the relevant individual development proposal. Therefore, pursuant to the foregoing and with each applicants' compliance with all other applicable laws and regulations, operation-related project impacts related to surface and groundwater and respective water quality would be less than significant.

Level of Significance

Potentially Significant

MM HYD-1a Prepare Stormwater Pollution Prevention Plan

Prior to the issuance of a grading permit, the relevant applicant for each individual development proposal within the project site shall submit a draft of the Notice of Intent (NOI) and Storm Water Pollution Prevention Plan (SWPPP) in connection with its individual development proposal pursuant to the then-applicable Multi-Agency Post-Construction Stormwater Standards Manual at the time the relevant grading

[21] Hydromodification controls are required for projects that replace on acre or more of impervious surface.

[22] As of the publication of this Draft EIR, the NEI detention basin is currently operational, and modifications are being completed. It would be available to accept stormwater from the project site once the proposed project is operational.

permit is submitted. After City approval of the relevant grading permit, the relevant NOI and SWPPP shall be sent to the California State Water Resources Control Board (State Water Board) for approval. Approval by the State Water Board is a prerequisite for issuance of the relevant grading permit by the City. The SWPPP shall address stormwater management during each phase of construction of the relevant individual development proposal. Best Management Practices (BMPs) shall be integrated into the relevant SWPPP as identified by the City of Tracy, which will result in the reduction or elimination of pollutants in stormwater discharges and the stabilization of BMPs to reduce or eliminate pollutants after construction of the relevant individual development proposal is completed. The relevant SWPPP shall be consistent with the applicable Regional Water Quality Control Board (RWQCB) standards and National Pollutant Discharge Elimination System (NPDES) permit requirements to protect water quality over the period of construction of the relevant individual development proposal.

MM HYD-1b Prepare Stormwater Management Plan

Prior to the issuance of a grading permit, the relevant applicant for each individual development proposal within the project site shall prepare a Stormwater Management Plan in connection with its individual development proposal for review and approval by the City of Tracy. The relevant Storm Water Management Plan (SWMP) shall include two fundamental components: (1) treatment for pollutants collected in stormwater using Low Impact Development (LID) measures, and (2) no net increase in the erosion potential of the receiving stream over the pre-project (existing) condition. All LID treatment measures would be required to be designed in accordance with applicable engineering criteria in the then-applicable Multi-Agency Post-Construction Stormwater Standards Manual. Implementation of the relevant SWMP would require the preparation of a clearly defined Operations and Maintenance (O&M) Plan by the relevant applicant in connection with its development proposal to ensure that installed stormwater treatment measure(s) and hydromodification management control(s) are inspected and properly operated and maintained for the life of the relevant individual development proposal.

Level of Significance with Mitigation

Less Than Significant

Groundwater Supply/Recharge

Impact HYD-2: The proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the proposed project may impede sustainable groundwater management of the basin.

Construction

Impacts related to depletion of groundwater supplies or interference with groundwater recharge are limited to operational impacts. No respective construction impacts related to groundwater would

occur in the project site because construction activities would not involve or affect groundwater or the use of groundwater.

Operation

Implementation of the proposed project would result in a significant amount of new impervious surfaces, which could interfere with groundwater recharge rates. The Geotechnical Engineering Report prepared for the proposed project (Appendix F) conducted a percolation test to determine the existing rate of stormwater percolation into the soil. As shown in Table 3.10-1, stormwater would percolate at a rate of 0.36 inch per hour or 167 minutes per inch.

Table 3.10-1: Percolation Test Results

Test ID	Depth of Test (feet)	Percolation Rate (inches per hour)	Percolation Rate (minutes per inch)
P1	5	0.36	167
Source: Terracon. 2019. Geotechnical Engineering Report: Tracy Ridge Warehouses.			

This percolation test determined that project site soils contain finely layered, fine-grained alluvial soils (silt) that impede vertical percolation of stormwater. As such, groundwater recharge on the project site is currently limited. Percolation rates could be further reduced if stormwater pollutants are present in the runoff, such as sediment, organic materials, and/or oil residue. However, the design of the proposed project's on-site stormwater detention basin includes filters to remove sediments and organic materials that might otherwise reduce groundwater percolation rates and thus would help facilitate groundwater recharge. Therefore, despite the significant increase in impervious surfaces that would occur with the proposed project, implementation of the proposed project would not significantly impact groundwater recharge rates for the foregoing reasons.

Historical Groundwater Use

The City currently operates nine groundwater extraction wells:

- Well 1 (at JJWTP)
- Well 2 (at JJTWP)
- Well 3 (at JJTWP)
- Well 4 (at JJWTP
- Lincoln Well
- Well 5 (Lewis Manor Well)
- Well 6 (Ball Park Well)
- Well 7 (Park and Ride Well)
- Well 8 (for ASR)

The City's newest well, Well 8, was constructed in January 2004 and was permitted by the California Department of Public Health[23] for use as a municipal production well in September 2010. The well

[23] As of July 1, 2014, the State's administration of the Drinking Water Program transferred from the State Department of Public Health to the SWRCB Division of Drinking Water.

was used as an ASR demonstration well during 2011, 2012, and 2013. In November 2013, the City received authorization from the Central Valley RWQCB to operate Well 8 as an ASR well.

Historically, groundwater accounted for up to 50 percent of the City's water supply. Prior to 2001, groundwater extraction in the City totaled less than 6,000 AFY. Between 2001 and 2004, to meet increased demands for water, the City extracted additional groundwater, ranging from 7,321 to 7,176 AFY. In 2005, the rate of groundwater extraction decreased back to the historic 6,000 AFY, reflecting two key factors: (1) the South County Water Supply Project (SCWSP) was completed and the City began receiving Stanislaus River water, and (2) rainfall was above normal, meaning that the City received a higher percentage of its Delta-Mendota Canal/Central Valley Project contractual entitlements. From 2006 to 2010, groundwater extraction ranged from 2,034 AFY to 498 AFY, declining as more water was used from the South San Joaquin Irrigation District.

The City’s groundwater production over the last several years is provided in Table 3.10-2.

Table 3.10-2: City of Tracy Historical Groundwater Production

Condition	AFY																			
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total Groundwater Production	7,321	7,802	6,847	7,176	5,826	3,034	3,672	2,598	1,327	498	292	420	515	680	519	648	996	817	645	1,181

Notes:
AFY = acre-feet per year
Source: West Yost. 2021. Tracy Alliance Project Water Supply Assessment (prepared for the City of Tracy), Figure 6-1. December.

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Other groundwater users in the Tracy area include the West Side Irrigation District, Naglee-Burk Irrigation District, Plain View Water District (now the BBID), and BCID. The 2001 Estimated Groundwater Yield Study prepared by Bookman-Edmonston,[24] which established the City's estimated groundwater yield of 9,000 AFY, considered the cumulative groundwater usage in the City and other users in the Tracy area.

Projected Future Groundwater Use

An assessment of the aquifer beneath the City indicates that there is an average annual operational potential yield of 9,000 AFY.[25] Since the City's groundwater is hard and consists of high TDS levels, the City has scaled back its groundwater extraction in most years, as shown in Table 3.10-2, in favor of higher-quality surface water sources. However, it is anticipated that the City will continue to rely on groundwater for peaking and drought and emergency water supply. Table 3.10-3 shows the anticipated future groundwater production during a normal year and during dry years.

Table 3.10-3: City of Tracy Projected Future Groundwater Production in Normal and Dry Years

	AFY				
Condition	**2020**	**2025**	**2030**	**2035**	**2040**
Total Groundwater Production During a Normal Year	2,500	2,500	2,500	2,500	2,500
Total Groundwater Production During Dry Years[(a)]	4,500	4,500	4,500	4,500	4,500

Notes:
AFY = acre-feet per year
(a) During multiple dry years, the City anticipates increasing its normal year groundwater production of 2,500 AFY by 6,500 AFY (i.e., the City's dry year supply), providing a total groundwater supply of 9,000 AFY.
Source: West Yost. 2021. Tracy Alliance Project Water Supply Assessment (prepared for the City of Tracy), Table 6-3. December.

As can be seen in Table 3.10-3, the City anticipates that total extraction during a normal year would be 2,500 AFY through the planning horizon By reducing groundwater extraction on an average annual basis during normal years, the City would: (1) increase the overall quality of its drinking water, thus increasing customer satisfaction and reducing system maintenance and repair caused by the lower-quality groundwater; and (2) recharge the underlying aquifer, effectively increasing the availability of groundwater during a drought or emergency condition (i.e., effectively "banking" groundwater). At the production volumes shown in Table 3.10-3, the City's groundwater supplies are considered to be 100 percent reliable.

The projected uses of groundwater during droughts shown in Table 3.10-3 are consistent with the City's Groundwater Management Policy.[26] If the City is unable to secure additional high-quality surface water supplies in the future, the City could expand groundwater production up to 9,000 AFY.

[24] Bookman-Edmonston. 2001. Estimated Groundwater Yield Study.
[25] Ibid.
[26] Pacific Municipal Consultants (PMC). 2011. Groundwater Management Policy Mitigated Negative Declaration, prepared for City of Tracy. December 7.

In the event of a severe water supply shortage or emergency, the City could increase production dramatically, up to 22,000 AFY.[27]

Groundwater Sufficiency

The 2020 UWMP addressed the sufficiency of the City's groundwater supplies, in conjunction with the City's other existing and additional water supplies, to meet the City's existing and planned future uses.[28] Based on the information provided above and included in the 2020 UWMP, the City's groundwater supply, together with the City's other existing and additional planned future water supplies, is sufficient to meet the water demands of the proposed project, in addition to the City's existing and other planned uses.

As discussed above, the City's use of groundwater over the last few years has significantly declined, primarily due to the availability of higher-quality surface water supplies from the SCWSP. In the future, although the City can sustainably extract up to 9,000 AFY of groundwater on a continuous basis, the City's use of groundwater under normal hydrologic conditions is anticipated to be lower, as available higher-quality surface water supplies would be utilized first. As shown in Table 3.10-3, in the future, assuming normal year hydrologic conditions, annual groundwater use is anticipated to be 2,500 AFY. This anticipated future groundwater pumpage is significantly below the City's maximum historical groundwater pumpage and the average annual operational yield of 9,000 AFY. The proposed project would not significantly decrease groundwater supplies because, among other things, the design of the proposed project's on-site stormwater detention basin includes filters to remove sediments and organic materials that might further reduce groundwater percolation rates.

Therefore, the proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the proposed project may impede sustainable groundwater management of the basin.

Level of Significance

Less Than Significant

Drainage Leading to Erosion/Siltation, Flooding, Additional Sources of Polluted Runoff, or Impedance of Flood Flows

Impact HYD-3:	**The proposed project could 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?

[27] GEI Consultants. 2015. Groundwater Assessment for Drought Emergency Conditions Requiring Groundwater to be Used as the Sole Source of Potable Water Supply (prepared for City of Tracy). August 10.

[28] EKI Environment & Water, Inc. 2021. 2020 Urban Water Management Plan for City of Tracy, Chapter 6. June.

i) Construction-related Erosion and Siltation

The proposed project would have a significant impact if it were to substantially alter the existing drainage pattern of the site in a manner that would result in substantial erosion or siltation on- or off-site. In general, such drainage effects could occur from grade changes at the site, exposure of soils for periods of time during precipitation events, or alterations to creek beds. These types of changes could have a potentially significant impact on project site drainage patterns.

The project site is not located adjacent or near any creek beds and the proposed project does not propose any alteration to a stream, creek bed, or river. Construction activity could result in substantial erosion or siltation due to a drainage pattern alteration and could therefore result in polluted runoff entering the City's stormwater drainage system and the Old River. This would represent a potentially significant impact. However, the proposed project would be required to implement a SWPPP as part of its Construction General Permit, pursuant to MM HYD-1a. The SWPPP is designed to ensure that erosion and siltation are prevented or minimized to the maximum extent feasible during construction through the implementation of standard BMPs. Consistent with Chapter 11.34 of the Municipal Code, each applicant for an individual development proposal within the project site would be required to implement the BMPs contained in the relevant SWPPP in connection with the relevant individual development proposal, which would be verified by a City inspector during the construction period. Pursuant to the relevant SDMP in effect at the time building permits are requested, the SWPPP would include a construction site monitoring program that demonstrates the site is in compliance with the Construction General Permit; therefore, the proposed project would also be required to adhere to this monitoring program mandate.

Therefore, although construction activities have the potential to generate increased sedimentation, compliance with applicable policies, laws and regulations would minimize the potential to increase sedimentation or siltation to the maximum extent practicable. With the implementation of these uniformly applied standards and procedures, construction impacts related to alteration of drainage pattern and resulting in erosion or siltation would be less than significant with mitigation.

Operation-related Erosion and Siltation

Development of the project site would increase impervious surfaces compared to existing conditions. Thus, project operation could result in increased amounts of stormwater runoff that could carry pollutants into Old River and ultimately San Joaquin River.

The proposed project would include an on-site stormwater detention basin with pump station that would be designed pursuant to all applicable standards and requirements to treat stormwater on-site and prevent erosion and siltation from increasing pollutant loads in the stormwater system and Old River. With respect to the Tracy Alliance parcels, bioretention treatment areas would be constructed around the proposed buildings and would also be interspersed throughout the parking lots (see Exhibit 2-10b in Chapter 2, Project Description). Stormwater that would be collected in the bioretention treatment areas would either evaporate or infiltrate through a bioretention filter into surrounding soils.

In addition, the proposed project would be required to comply with the City of Tracy NPDES program, SWMP (pursuant to MM HYD-1b), and all relevant provisions of the Municipal Code related to stormwater pollution, including the provision of appropriately sized bioretention areas for pretreatment of stormwaters in accordance with applicable C.3 guidelines.

Furthermore, the proposed project would be required to implement MM HYD-3 that would require each applicant for an individual development proposal within the project site to prepare a Final Drainage Plan in connection with the relevant individual development proposal prior to site grading, for review and approval by the City. Each Final Drainage Plan would be required to abide by the Multi-Agency Post-Construction Stormwater Standards Manual and require the incorporation of BMPs like such as those described above, prior to discharging stormwater off-site. Through adherence to applicable policies, standards, and requirements and implementation of MM HYD-3, the proposed project's operation would not substantially increase erosion or siltation. Therefore, impacts would be less than significant with mitigation incorporated.

ii) Construction-related Surface Runoff

Impacts related to the potential for the project to increase the rate or amount of surface runoff resulting in flooding are limited to operational impacts.[29] As such, no construction impacts would occur.

Operation-related Surface Runoff

The proposed project would increase the amount of impervious surfaces on the project site, which could increase the rate or amount of surface runoff in a manner which would result in flooding and represents a potentially significant impact. However, the proposed project's increase in impervious surfaces is accounted for in the design of the proposed project's on-site stormwater detention basin with pump station, which would ensure that post-project flows do not exceed pre-project flows in accordance with applicable C.3 requirements. Therefore, operation of the proposed project would not result in any increase in flooding on or off-site. The proposed project includes an on-site stormwater detention basin designed to reduce runoff volume and pollutants from the project site from entering the City stormwater drainage system or waterways, in accordance with Provision C.3 in the Municipal Regional Permit as implemented by the Central Valley RWQCB. Therefore, impacts related to surface runoff resulting in flooding on or off-site would be less than significant.

iii) Construction-related Exceedance of Storm Drain Capacity

The existing stormwater sheet flows from the site to the northeast toward I-205 and into Pescadero Irrigation District facilities; this stormwater does not currently enter into a City-maintained facility.

During construction, the proposed project could increase stormwater runoff generation, which could potentially lead to flooding on or off-site. However, each applicant for an individual development proposal would be required to implement a SWPPP as part of its Construction General Permit, as

[29] The proposed project would not increase storm flow from the project site during construction because of the proposed stormwater basin would be installed first to generate the dirt onsite, which would ensure that existing flows would be detained before leaving the project site

required by MM HYD-1a. The SWPPP is designed to ensure that stormwater generation and pollutants are prevented or minimized to the maximum extent feasible during construction through the implementation of standard BMPs. Consistent with Chapter 11.34 of the Municipal Code, each individual development proposal within the project site would be required to implement the BMPs contained in the relevant SWPPP in connection with the relevant individual development proposal, which would be verified by a City inspector during the construction period. Therefore, the construction impact related to exceedance of storm drain capacity and stormwater pollution would be less than significant with mitigation incorporated.

Operation-related Exceedance of Storm Drain Capacity

As noted above, the existing stormwater sheet flows from the site to the northeast toward I-205 and into Pescadero Irrigation District facilities; this stormwater does not currently enter into a City-maintained facility.

The proposed project would result in increased impervious surface area and increased runoff, which could potentially exceed existing storm drainage capacity and increase pollutant loads. However, the proposed project, as part of the individual development proposal to occur on the Tracy Alliance parcels, would install an on-site stormwater detention basin with a pump station along the northeast site boundary that would be owned and managed by the City. Bioretention treatment areas would be located around the buildings on the Tracy Alliance parcels and would also be interspersed throughout the parking lots (see Exhibit 2-10b in Chapter 2, Project Description). Stormwater that would be collected in the bioretention treatment areas would either evaporate or infiltrate through a bioretention filter into surrounding soils. Though the bioretention treatment areas for Suvik Farms and Zuriakat parcels are not currently known, each applicant for an individual development proposal on the foregoing parcel(s) would also have to prepare a Final Drainage Plan (similar to the applicant for the Tracy Alliance parcels) upon submittal of a development application that would be required to abide by the Multi-Agency Post-Construction Stormwater Standards Manual and require the incorporation of BMPs such as those described above, prior to discharging stormwater off-site.

Proposed bioretention treatment areas would be designed to reduce runoff volume entering the City stormwater drainage system or waterways, in accordance with Provision C.3 in the Municipal Regional Permit as implemented by the Central Valley RWQCB, and all other applicable standards and requirements. In addition, the proposed project would be required to comply with the City of Tracy NPDES program, Storm Water Management Program, and all relevant provisions of the Municipal Code related to stormwater pollution, including the provision of appropriately sized bioretention areas for pretreatment of stormwaters in accordance with C.3 guidelines. Furthermore, implementation of MM HYD-3 would ensure that stormwaters are collected and conveyed in accordance with Chapter 11.34 of the Municipal Code. MM HYD-3 would also ensure that the project complies with applicable regulations of the NPDES permit, and that each applicant for an individual development proposal within the project site prepares and submits a Final Storm Water Control Plan and Stormwater Control Operation and Maintenance Plan in connection with the relevant individual development proposal to the City's Public Works and Community Development Department for approval. These plans would prevent pollutants from moving off-site through the treatment of stormwater on-site (consistent with BMPs required in the Multi-Agency Post-

Construction Stormwater Standards Manual). Thus, operation of the proposed project would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Therefore, the operational impact related to additional sources of polluted runoff would be less than significant with mitigation.

iv) Construction-related Impacts to Flood Flows

Impacts related to impedance of flood flows would only occur during the operational phase of the project. As such, no construction impedance of flood flow impacts would occur.

Operation-related Impacts to Flood Flows

The project site could be subject to flooding in the event of a levee failure along the San Joaquin River or Paradise Cut, which is a distributary of the San Joaquin River. The levees along the San Joaquin River and Paradise Cut near the City do not currently meet FEMA criteria for Urban Level of Flood Protection (ULOP). Therefore, the analysis to determine the flood levels must consider failure of the levees along the river.[30] According to the Flood Protection Technical Memorandum, the volume of the breach flow would need to be sufficient to inundate over 10 square miles prior to flows reaching the project site. The downstream inundation area is illustrated in Exhibit 3.10-3.

The Flood Protection Technical Memorandum concluded that the 200-year flood levels at the project site would be virtually the same as the FEMA 100-year flood levels, which is estimated to be 24 feet. Maximum flood depths at the project site would be controlled by existing ground elevations of tributaries of the San Joaquin River, including Old River and Sugar Cut Channel, which would influence potential flows to the project site. Because the ground elevations around the southern end of the Sugar Cut Channel (21.2 feet) are greater than the projected 200-year flood elevation in the Old River (estimated at 17 feet), flood flows would be limited to existing drainage channels. The Flood Protection Technical Memorandum concluded that a levee breach at the Paradise Cut would result in 200-year flood elevations of at most 24 feet on the project site, which is similar to the 100-year flood elevation.

Consequently, the Flood Protection Technical Memorandum determined it would be reasonable to plan for a 200-year flood elevation of 25 feet and all new structures within the project site would need to have a lowest finished floor elevation at least one foot, 26 feet, above the 200-year flood level associated with levee failure. In addition, although the FEMA SFHA only covers a portion of the project site, the same minimum finished floor elevation would apply to all portions of the proposed project. Implementation of MM HYD-3 would require each applicant for individual development proposals within the project site to prepare a Final Drainage Plan in connection with the relevant individual development proposal prior to site grading to ensure that all relevant project buildings are built at a minimum finished floor elevation of 26 feet (i.e., 8.5 feet higher than the existing lowest ground elevation of 17.5 feet) and all measures and recommendations included in the Flood Protection Technical Memorandum are included in the project design. MM HYD-3 would ensure the project is consistent with applicable provisions of the City's Municipal Code (Title 9 Building

[30] Wood Rodgers. 2021. Technical Memorandum: Flood Protection at the Tracy Alliance Project Site. January 13.

Regulations, Chapter 9.52 Floodplain Regulations), which requires all new construction and substantial construction pertaining to buildings have the lowest floor, including basement, elevated to or above the base flood elevation.

Runoff from the project site would be diverted from its current release point to the northeast into the proposed project's on-site stormwater detention basin that would be pumped to the west (into DET NEI) and eventually the San Joaquin River. The low point of the project site is at an approximate elevation of 17.5 feet, 6.5 feet below the FEMA 100-year floodplain elevation. As a result, the proposed project's on-site stormwater detention basin would be located within a known flood hazard zone. The City of Tracy Design Standards (City's Design Standards)[31] requires basins to be emptied within 10 days. The proposed project's on-site stormwater detention basin would need to drain at 3 cubic feet per second (cfs) to fulfill this requirement.[32]

The 100-year floodplain impacts on the project site would only result from the unlikely event of a levee failure along the San Joaquin River or Paradise Cut. Furthermore, the volume of the breach flow would need to be sufficient to inundate over 10 square miles prior to flows reaching the project site, which is an extreme and unlikely event. If flood flows reached the project site, they would fill available storage in the proposed project's on-site stormwater detention basin below the flood level and any additional flood flow volumes would be pumped into the Eastside Channel. The Flood Protection Technical Memorandum determined that it would not matter if the proposed project's on-site stormwater detention basin contained sufficient capacity in the event of regional flooding because runoff upstream from the project site would not make flooding worse and the impact of additional stormwater volumes being pumped into the Eastside Channel would be less than significant.

The City's Design Standards require a pumping capacity of 3 cfs for the proposed project's on-site stormwater detention basin to have capacity for a longer duration 100-year event. MM HYD-3 would require the proposed project's on-site stormwater detention basin to be designed in accordance with, and meet the applicable objectives, standards and requirements set forth in the Citywide Storm Drainage Master Plan in effect at the time building permits are requested for the relevant individual development proposal.

The Flood Protection Technical Memorandum notes that unlike most other areas of the City, the location of the proposed project's on-site stormwater detention basin has a defined existing conveyance downstream from it. Although it may be reasonable to pump all of the increased runoff from the area tributary to the proposed project's on-site stormwater detention basin into the City's Eastside Channel drainage system, it may be feasible to discharge some runoff (possibly up to the pre-project runoff volume) into the existing downstream system. Any allowable discharge into the Tom Paine Slough system could reduce the capacity required for the proposed project's on-site stormwater detention basin. This design-level review would be completed as part of the Final Drainage Plan for each individual development proposal as required in MM HYD-3. Pursuant to the foregoing and with the applicants' compliance with all other applicable laws and regulations

[31] City of Tracy. 2008. City of Tracy Design Standards, Section 5: Storm Drainage Design Standards.
[32] Wood Rodgers. 2021. Technical Memorandum: Flood Protection at the Tracy Alliance Project Site. January 13.

including designing the proposed project's on-site stormwater detention basin and all structures on-site consistent with City's Design Standards, recommendations provided in the Flood Protection Technical Memorandum, performance standards included in the Citywide Storm Drainage Master Plan in effect at the time building permits are requested, and implementation of MM HYD-3, impacts related to impedance of flood flows would be less than significant with mitigation incorporated.

Level of Significance before Mitigation

Potentially Significant

Mitigation Measures

Implement MM HYD-1a and MM HYD-1b

MM HYD-3 Prepare Final Drainage Plan Prior to Grading

Each applicant for an individual development proposal within the project site shall, in connection with the relevant individual development proposal:

- Comply with all applicable rules, regulations, and procedures of the National Pollutant Discharge Elimination System (NPDES) for municipal, construction and industrial activities as promulgated by the California State Water Resources Control Board (State Water Board), or any of its Regional Water Quality Control Boards (RWQCBs).
- Submit a Final Stormwater Control Plan and a Stormwater Control Operation and Maintenance Plan (O&M Plan) to the City of Tracy Public Works and Community Development Department, which shall be reviewed for compliance with the County's National Pollutant Discharge Elimination System (NPDES) Permit and shall be determined consistent with the City's Stormwater Management and Discharge Control Ordinance (Chapter 11.34 of the Municipal Code, Ordinance 1072) prior to issuance of a grading permit for the relevant individual development proposal. Improvement Plans shall be reviewed to verify consistency with the relevant Final Stormwater Control Plan and compliance with Provision C.3 of the City's NPDES Permit and the City's Stormwater Management and Discharge Control Ordinance (Chapter 11.34 of the Municipal Code, Ordinance 1072).
- Prior to issuance of grading permits for each relevant individual development proposal, the relevant applicant shall submit a Final Drainage Plan in connection with the relevant individual development proposal that incorporates the measures included in the Flood Protection Technical Memorandum. The City of Tracy Public Works and Community Development Department shall review the relevant Final Drainage Plan to ensure it is in compliance with all applicable requirements and standards, including the recommendations provided in the Flood Protection Technical Memorandum and in the Citywide Storm Drainage Master Plan in effect at the time building permits are issued, to reduce risk related to flooding within a designated floodplain. The relevant Final Drainage Plan shall

be reviewed by City of Tracy Public Works and Community Development Department staff to ensure that all building minimum floor elevations for the relevant development proposal are at 26 feet or 1 foot above the maximum flood elevation and shall accommodate the 200-year storm event as detailed in the Flood Protection Technical Memorandum. In addition, the on-site stormwater detention basin shall be designed in accordance with the recommendations provided in the Flood Protection Technical Memorandum and in accordance with the Citywide Storm Drainage Master Plan in effect at the time building permits are issued. Additionally, the relevant Final Drainage Plan shall determine if discharge of pre-project runoff rates and/or volumes into the Tom Paine Slough drainage area can continue after project construction pursuant to applicable standards and requirements. Should the relevant Final Drainage Plan determine it is feasible to discharge some runoff (possibly up to the pre-project runoff volume) into the existing downstream system, this design shall be submitted to the City of Tracy as part of the relevant Final Drainage Plan for review and approval.

Level of Significant after Mitigation

Less Than Significant

Risk of Pollutant Release Due to Inundation

Impact HYD-4: The proposed project would be located in a flood hazard zone, tsunami, or seiche zone, or risk release of pollutants due to project inundation.

Construction and Operation

As described in Impact HYD-3, in the event of a levee failure along the San Joaquin River or Paradise Cut, which is a distributary of the San Joaquin River, sufficient to inundate over 10 square miles prior to flows reaching the project site, the project site could be inundated; it is located within a flood hazard zone as determined by FEMA. To address potential inundation, compliance with MM HYD-3 and applicable provisions of the City's Municipal Code (Title 9 Building Regulations, Chapter 9.52 Floodplain Regulations) would require each applicant for individual development proposals within the project site to submit a Final Drainage Plan in connection with the relevant individual development proposal that incorporates the recommendations included in the Flood Protection Technical Memorandum and project-specific Hydrology Study. Additionally, the relevant Final Drainage Plan shall determine if discharge of pre-project runoff rates and/or volumes into the Tom Paine Slough drainage area can continue after project construction pursuant to applicable standards and requirements. Should the relevant Final Drainage Plan determine it is feasible to discharge some runoff (possibly up to the pre-project runoff volume) into the existing downstream system, this design shall be submitted to the City as part of the relevant Final Drainage Plan for review and approval. These improvements would ensure that the proposed project would not be subject to a substantial risk of inundation and drainage would be improved such that the proposed project would not be at significant risk of pollutant release.

The project site is not located near the ocean and would not be susceptible to inundation from a tsunami. The project site is not located near a large, enclosed body of water and is not susceptible to inundation from a seiche.

With implementation of MM HYD-3, the proposed project would not be a risk for inundation from flooding, tsunami, or seiche. Therefore, impacts related to risk of pollutant release due to inundation would be less than significant with mitigation.

Level of Significance before Mitigation

Potentially Significant

Mitigation Measures

Implement MM HYD-3

Level of Significance after Mitigation

Less Than Significant

Water Quality Control or Sustainable Groundwater Management Plans Consistency

Impact HYD-5: The proposed project could conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

Construction

For the reasons described above, the proposed project would not conflict with the City's NPDES program. Given that construction for the proposed project would disturb more than one acre of land, the proposed project would be required to comply with the terms of the Construction General Permit, which would require the preparation and implementation of SWPPPs in connection with each individual development proposal within the project site, which would include BMPs to ensure reduction of pollutants from construction activities potentially entering surface waters in accordance with MM HYD-1a. Therefore, construction impacts related to a water quality control plan or GMP consistency would be less than significant with mitigation.

Operation

The project site is located within the San Joaquin Hydrologic Basin Planning Area under the jurisdiction of the Central Valley RWQCB. The proposed project would be required to comply with applicable goals and policies as set forth by the Central Valley RWQCB. The Tracy Regional GMP is the sustainable GMP that would govern development that occurs on the project site. As described in Impact HYD-2, the project site is located within the boundaries of the Tracy Subbasin and has limited potential to adversely impact groundwater recharge rates due to existing poorly drained soils and shallow groundwater levels. Although the City utilizes groundwater from the Tracy Subbasin as part of its water supply, the City's use of groundwater over the last few years has significantly declined, primarily due to the availability of higher-quality surface water supplies from the SCWSP. In the future, although the City can sustainably extract up to 9,000 AFY of groundwater on a continuous basis, the City's use of groundwater under normal hydrologic conditions is anticipated to be lower, as available higher-quality surface water supplies would be utilized first. Assuming normal year

hydrologic conditions, annual groundwater use is anticipated to be 2,500 AFY. This anticipated future groundwater pumpage is significantly below the City's maximum historical groundwater pumpage and the average annual operational yield of 9,000 AFY, and the proposed project would not significantly decrease groundwater supplies because the design of the proposed project's on-site stormwater detention basin includes filters to remove sediments and organic materials that might further reduce groundwater percolation rates.

Given that the City has determined it would have adequate groundwater supplies to serve the project site, the proposed project would not conflict with or obstruct implementation of the relevant water quality control plan or the relevant sustainable GMP. Therefore, operational impacts related to water quality control plan or GMP consistency would be less than significant.

Level of Significance before Mitigation

Potentially Significant

Mitigation Measures

Implement MM HYD-1a

Level of Significance after Mitigation

Less Than Significant

3.10.5 - Cumulative Impacts

Hydrology

Cumulative impacts related to hydrology and water quality typically occur within a defined watershed or basin. Therefore, all cumulative developments within the San Joaquin River Basin including those cumulative projects listed in Chapter 3, Environmental Impact Analysis, Table 3-1, Cumulative Projects, have been considered in this analysis since they are located within the San Joaquin River Basin which eventually drains into the San Joaquin River and ultimately into the Pacific Ocean. All cumulative projects would be required to comply with applicable laws and regulations implemented by the relevant public agencies including the Central Valley RWQCB, as well as relevant policies in the General Plan and other applicable codes, ordinances, and policies, which prevent a project from increasing off-site surface water flow from existing conditions and further ensures that projects adhere to BMPs during construction to prevent pollutants from being carried off-site. Additionally, regional development would be required to comply with applicable regional, State and federal laws and regulations regarding flooding to ensure impacts are less than significant in this regard. These regulations, in combination with implementation of applicable provisions in the General Plan (including, but not limited to, Objective PF-7.3: Policies P1, P2, P3, P4, and P5, Objective PF-7.4: Policy P3, and Objective PF-8.2: Policies, P1, P2, P3, P4), would result in a less than significant cumulative impact related to hydrology.

As discussed in detail above, the proposed project would also be required to comply with applicable laws and regulations implemented by the relevant public agencies including the Central Valley RWQCB, as well as relevant policies in the General Plan, required to demonstrate consistency with the General Plan and other applicable codes, ordinances, and policies related to preventing

pollutants from being conveyed off-site. The combination of the requirement to adhere to these laws, regulations and policies as well as identified BMPs would ensure that the proposed project's contribution to the less than significant cumulative impact would not be cumulatively considerable. Thus, there would be a less than significant cumulative impact related to hydrology.

Water Quality

The geographic context for consideration of cumulative impacts related to surface water quality is the San Joaquin River Basin. All cumulative projects would involve short-term construction and long-term operational activities that would have the potential to degrade water quality in downstream water bodies, including the San Joaquin River. All cumulative project construction would be required to obtain a Construction General Permit from the State Water Board, which would require preparation of a SWPPP that would control potential discharges of contaminants into the San Joaquin River. These cumulative projects would also be required to prepare a SWMP and comply with the applicable General Plan policies and relevant provisions of the Municipal Code during operation. For these reasons, there would be a less than significant cumulative impact with respect to surface water quality.

The proposed project would also be required to obtain a Construction General Permit from the State Water Board and prepare a SWPPP as well as a SWMP. Similarly, the proposed project would also be mandated to comply with applicable General Plan Policies (including, but not limited to, Objective PF-7.3: Policies P1, P2, P3, P4, and P5, Objective PF-7.4: Policy P3, and Objective PF-8.2: Policies, P1, P2, P3, P4), and applicable provisions of the Municipal Code during operation. For these reasons and as further discussed above, there would be a less than significant cumulative impact related to surface water quality and the proposed project's contribution to the less than significant cumulative impact would not be cumulatively considerable.

The geographic context for consideration of cumulative impacts related to groundwater quality and management is the Tracy Groundwater Subbasin. All cumulative projects would involve short-term construction and long-term operational activities that would have the potential to impact groundwater quality and management. Construction related to cumulative projects would be required to obtain a Construction General Permit from the State Water Board, which would require preparation of a SWPPP that would control pollutants that could seep into groundwater. Operations of these cumulative projects would be required to comply with all applicable laws and regulations imposed by the relevant public agencies including the Central Valley RWQCB, thereby ensuring that stormwater is pre-treated via bioretention and is otherwise handled pursuant to all applicable standards and requirements to ensure that percolation to the groundwater table would not result in degradation of groundwater quality. In addition, the cumulative projects would include bioretention areas to remove sediments and organic materials that might reduce groundwater percolation rates and other project features that would help facilitate groundwater recharge. For these reasons, there would be a less than significant cumulative impact to groundwater quality.

Similarly, as discussed in detail above, the proposed project would be mandated to comply with applicable General Plan policies and applicable provisions of the Municipal Code, as well as other governing laws and regulations, during operation. For these reasons and as further discussed above,

there would be a less than significant cumulative impact related to groundwater quality and the proposed project's contribution to the less than significant cumulative impact would not be cumulatively considerable.

Flooding

The geographic context for consideration of cumulative impacts related to flooding is the NEI Specific Plan area. A small portion of the northern part of the NEI Specific Plan area is within the 100-year flood zone and flooding impacts would affect other parcels in the NEI Specific Plan area. According to the General Plan, the City anticipates urban growth in this portion of the City.

As discussed in the General Plan, portions of the City are in a floodplain. Flooding occurs mainly near the northern areas of the City closer to I-205. Cumulative development projects in the floodplain would be required to install stormwater facilities pursuant to applicable standards to ensure projects would not be susceptible to flooding. The City would review cumulative development proposals to ensure they are in accordance with applicable guidelines, ordinances, permitting requirements, including General Plan Policies (including, but not limited to, Objective PF-8.1: Policies P1, P2, P3, P4, P5, P6, P7, Objective PF-8.2: Policies P1, P2, P3, and P4, Objective SA-2.1: Policies P1, P2, P3, and P4). Thus, there would be a less than significant cumulative impact related to flooding.

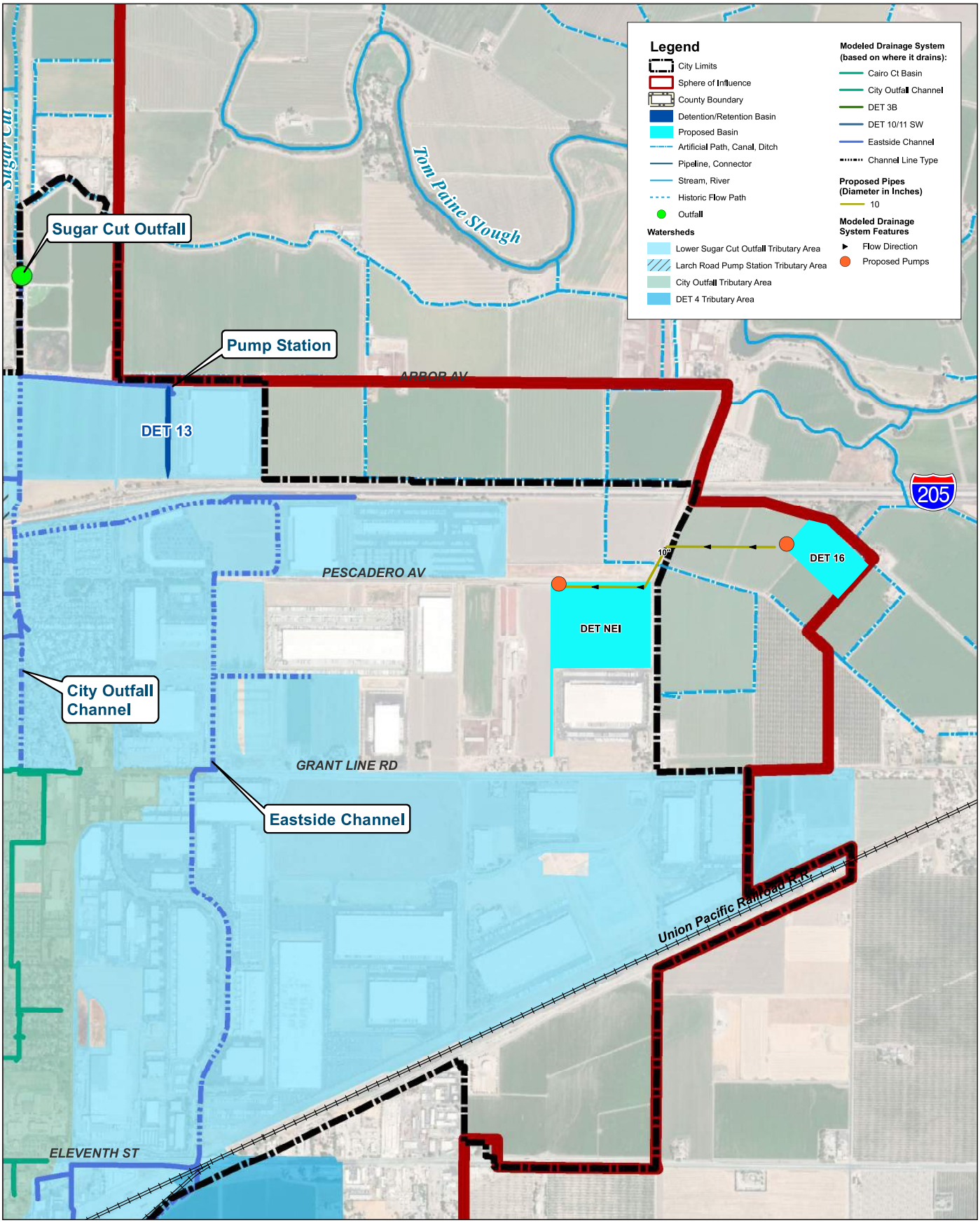
The proposed project would also be required to install stormwater facilities and prepare a Final Drainage Plan in connection with each individual development proposal, which would be required to adhere to the stringent criteria set forth in the City's Design Standards. For example, the proposed project is incorporating an on-site stormwater detention basin into its design that would adhere to all applicable performance standards to ensure no flooding impacts. For these reasons and as further discussed above, the proposed project's contribution to the less than significant cumulative impact would not be cumulatively considerable.

Thus, there would be a less than significant cumulative impact related to flooding and the proposed project's contribution to the less than significant cumulative impact would not be cumulatively considerable.

Level of Cumulative Significance

Less Than Significant

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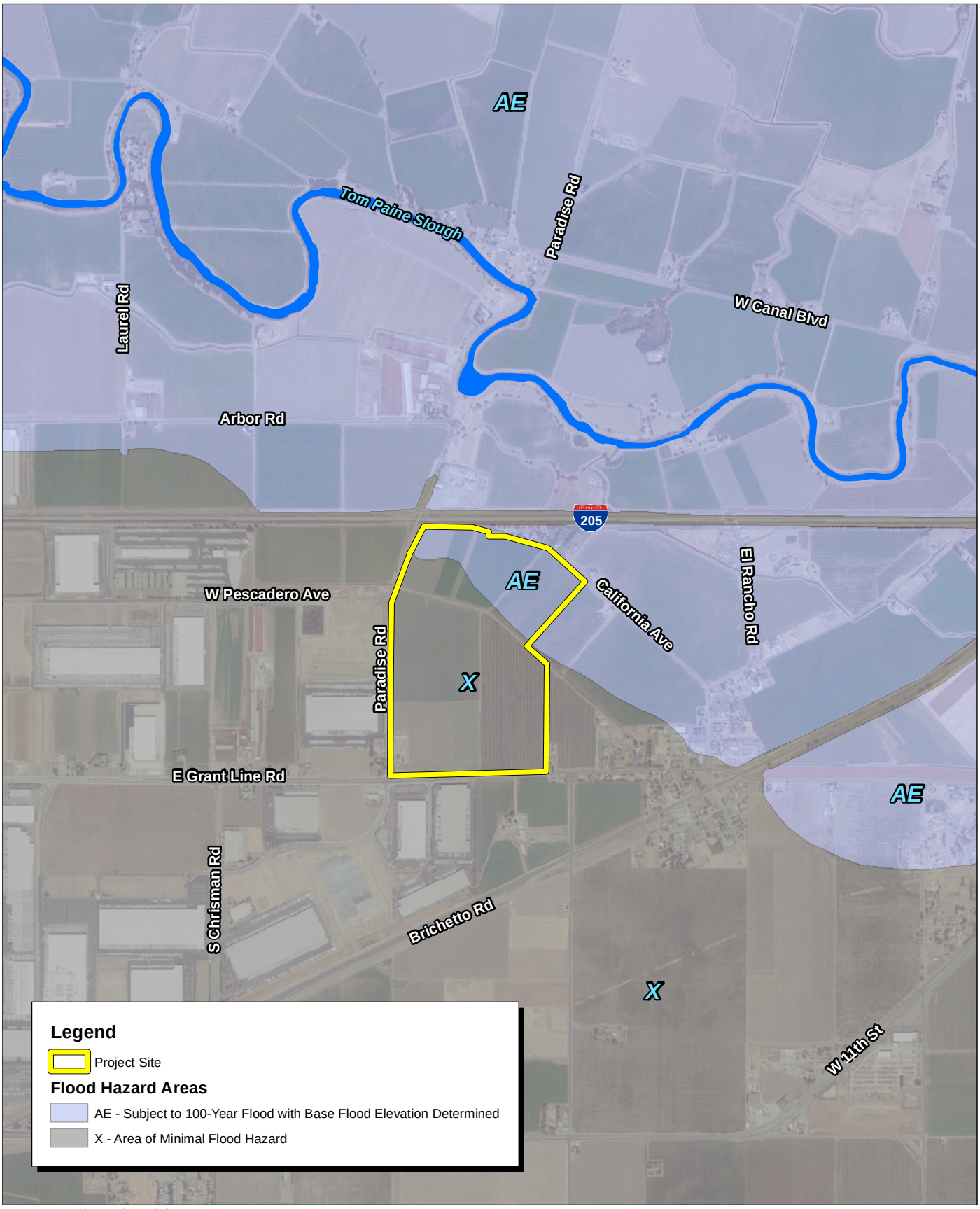
Source: Wood Rodgers, March 2020.

Exhibit 3.10-1

Drainage Downstream from the Project Site and Location of On-Site Stormwater Detention Basin and NEI Detention Basin

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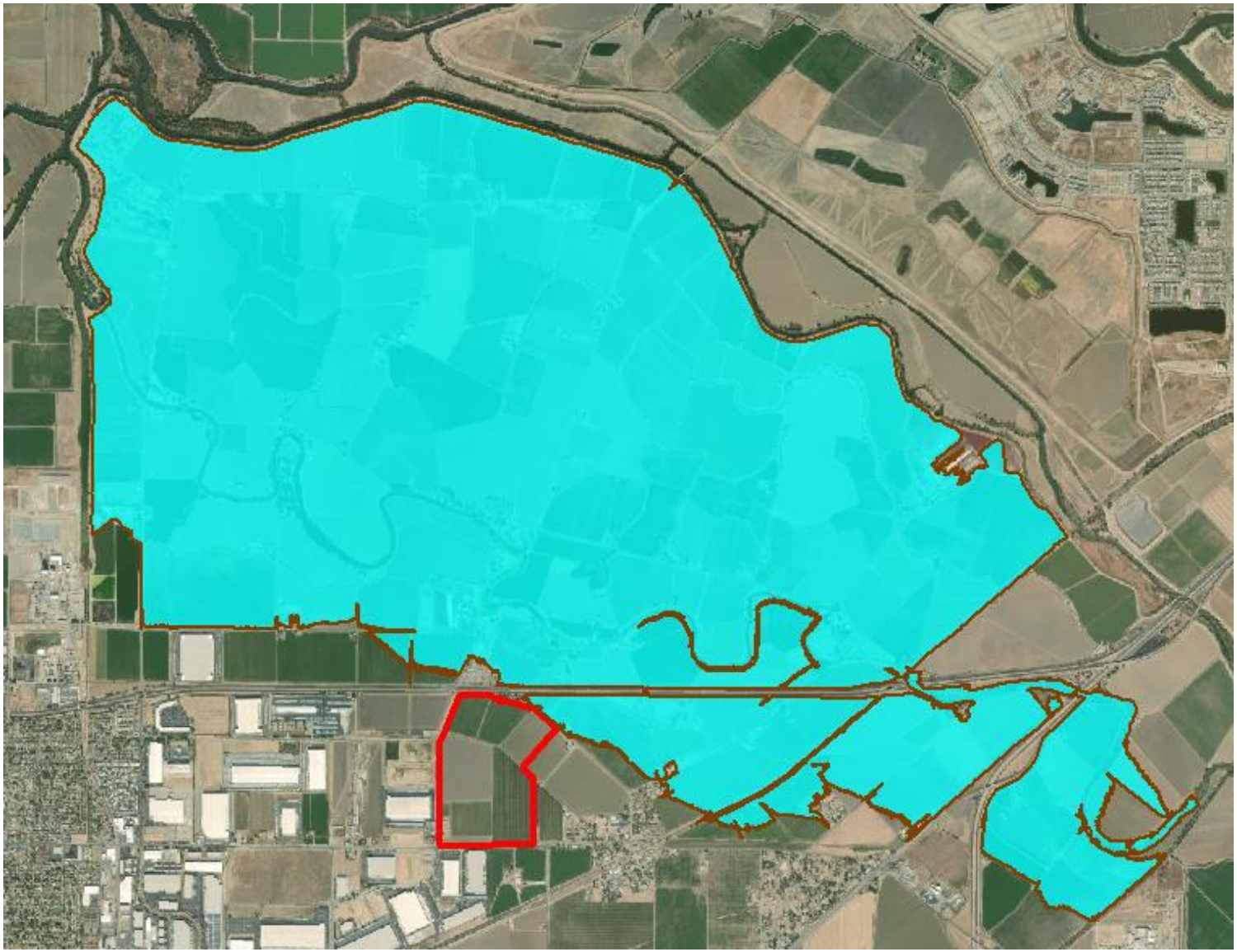
Source: Google Earth Aerial Imagery, August 2018. FEMA NFHL Map Image Data.

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2,000 1,000 0 2,000 Feet

Exhibit 3.10-2
FEMA Flood Map

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Source: Wood Rodgers, January 13, 2021.

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Exhibit 3.10-3
Regional Flooding below Project Site

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3.11 - Land Use and Planning

3.11.1 - Introduction

This section describes existing conditions related to land use and planning as well as the relevant regulatory framework. This section also evaluates potential impacts related to land use and planning that could result from project implementation. Information included in this section is based, in part, on review of applicable land use policies and regulations, including those within the City of Tracy General Plan (General Plan), Northeast Industrial (NEI) Specific Plan and NEI EIR, San Joaquin County Airport Land Use Compatibility Plan, and San Joaquin County Local Agency Formation Commission (LAFCo) policies. During the Notice of Preparation (NOP) scoping period, the following comments were received related to land use and planning:

- The City should consult with the San Joaquin Council of Governments (SJCOG) to determine whether the proposed project is consistent with the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). Projects within the secondary zone of the legal Delta that are consistent with the RTP/SCS are not considered to be a covered action under the Delta Plan.

3.11.2 - Environmental Setting

Physical Land Use

Surrounding Area

To the North

Single-family homes and a cell tower are located north of the project site across California Avenue. A vehicle dealership and agricultural lands are located farther to the north, across Interstate 205 (I-205). Further to the north are additional agricultural lands, some with single-family homes and associated agricultural structures, a dairy operation, and the Tom Paine Slough.

To the East

Agricultural lands with associated single-family homes and agricultural structures are located to the east. Further to the east is the unincorporated community of Banta and additional agricultural lands.

To the South

Light industrial warehouses and agricultural lands with associated single-family homes and agricultural structures are located to the south, across Grant Line Road. Further south are additional agricultural lands and similar associated structures. The Tracy Animal Services Unit lies directly southwest of the site.

To the West

Single-family homes and associated structures and vehicles, a light industrial warehouse, vacant lots, and agricultural lands are located to the west, across Paradise Road. Further west are single-family homes, additional light industrial uses, and a dairy operation.

Project Site

The project site consists of five parcels, as shown in Exhibit 2-3; the five parcels are also listed in Table 2-1. The site is bound by I-205 to the north, California Avenue to the northeast, Grant Line Road to the south, and Paradise Road to the west.

The project site is relatively flat and is currently occupied by two existing residences and agricultural structures as shown in Table 3.11-1. Several private dirt farm roads provide access within the project site between crop fields. In addition, there are streetlights and power and telecommunication lines in various locations immediately surrounding the project site. The project site is designated under the City's General Plan as Industrial, and is designated under the County's General Plan as A/UR.

Table 3.11-1: Age and Square Footage of Existing Structures

Building Identification	Building Use	Approximate Construction Date	Number of Stories	Approximate Square Footage (square feet)
Cattle Storm Shed	Equipment Storage	1960s	1	5,700
Hay Barn	Hay Storage	1960s	1	10,500
Restroom with Floor Drain	Restroom	1950s	1	50
Plywood Shed	Storage	2000s	1	100
Calf Barn	Storage/Debris	1950s	1	1,700
Wooden Shed	Storage/Debris	1950s	1	150
Shop/Garage	Shop/Storage/Debris	1950s	1	1,400
Residence (Vacant)	Vacant	1950s	1	900
Residence Garage	Storage/Automotive Maintenance	1950s	1	650
Residence (Occupied)	Occupied	1930s	1	1,700
Milk Barn	Storage/Debris	1950s	1	2,900

Notes:
Source: Terracon. 2018. Phase I Environmental Site Assessment: Tracy Ridge. December 21.

Land Use Designations and Zoning

Surrounding Area

Exhibits 2-5 and 2-6 in Chapter 2, Project Description, depict land use designations and zoning for surrounding properties, as described below.

To the North

The San Joaquin County General Plan designates the area north of the project site as General Agriculture (A/G). The San Joaquin County Zoning Map zones the area as AG-40.

To the East

The San Joaquin County General Plan designates the area east of the project site as General Agriculture (A/G). The San Joaquin County Zoning Map zones the area as AG-40.

To the South

The San Joaquin County General Plan designates the area south of the project site and outside City limits as General Agriculture (A/G). The San Joaquin County Zoning Map zones the area as AG-40.

The City of Tracy General Plan designates the area south of the project site and inside City limits as Industrial (I). The City of Tracy Zoning Map zones the area as NEI Specific Plan, which designates the area as Light Industrial Land Uses (LI) and General Commercial (GC).

To the West

The City of Tracy designates the area west of the project site as Industrial. The City of Tracy Zoning Map zones the area as NEI Specific Plan, which designates the area as LI and GC.

Project Site

The San Joaquin County General Plan designates the project site as General Agriculture (A/G). The San Joaquin County Zoning Map zones the project site as AG-40. Because the project site is within the City of Tracy's Sphere of Influence (SOI), the Tracy General Plan designates the project site as Industrial (I). However, because it is not within the City's municipal boundaries, there is no City zoning on the project site.

3.11.3 - Regulatory Framework

Regional

Regional Transportation Plan/Sustainable Communities Strategy

The 2018 RTP/SCS (The Plan), published by the SJCOG, is a long-range integrated transportation planning document for San Joaquin County through 2042. The Plan functions as the Sustainable Communities Strategy, mandated by Senate Bill 375, which aims to reduce greenhouse gas (GHG) emissions through investment in roadway operations and maintenance and transit, and the promotion of housing near transit areas. The Plan is a focused update that builds upon the sustainability goals and transportation investment strategies developed in the original 2014 Plan. The Plan focuses on implementation activities that incorporate new technologies and innovations and key socioeconomic, demographic, and development trends from the previous 4 years.

Local

San Joaquin County General Plan

The San Joaquin County General Plan 2035 applies to all unincorporated lands within the County, and includes objectives, policies, and implementation programs that pertain to the following: type of development to be encouraged; where new development should occur; how new and existing residences should be provided with services and utilities; and when development should take place. The County General Plan identifies property in the SOI of each city and identifies that most of the anticipated

growth in the SOI will occur as a result of city annexations and expansions. It can be expected that by 2035 much of the land currently within each city SOI will be annexed into each respective city.

San Joaquin Local Agency Formation Commission

Established by State law in 1963, LAFCo is responsible for coordinating changes in local governmental boundaries, including annexations and detachments of territory; incorporations of cities; formations of special districts; and consolidations, mergers, and dissolutions of districts. LAFCo also reviews ways to reorganize, simplify, and streamline governmental structures. LAFCo also has the authority to initiate proposals involving district consolidation, mergers, and reorganizations. In addition, LAFCo is responsible for reviewing out-of-agency service agreements between property owners and service providers.

LAFCo also develops and updates SOIs for each city and special district within the county. Spheres are planning tools used to provide guidance for individual proposals involving jurisdictional changes, and are intended to encourage efficient provision of community services and prevent duplication of service delivery. Territory must be within a city or district's SOI in order to be annexed.

LAFCo is an independent public agency with countywide jurisdiction, established by State law. LAFCo has approval authority regarding boundary changes in organization to cities and special districts including annexations, detachments, formations, and incorporations. As noted above, LAFCo approval is necessary for changes to a city's municipal limits or a City's SOI. Under the California Environmental Quality Act (CEQA), for purposes of the proposed project, LAFCo is a responsible agency that will consider the information in this Draft EIR in its review of the proposed reorganization.[1]

As detailed in Government Code Section 56668, LAFCo must consider the 17 factors in Government Code Section 56668 when reviewing a proposal for reorganization, as noted further below.

Government Code Section 56668

When reviewing annexation proposal, factors that LAFCo must consider include, but are not limited to the following:

- Population and population density; land area and land use; per capita assessed valuation; topography, natural boundaries, and drainage basins; proximity to other populated areas; the likelihood of significant growth in the area, and in adjacent incorporated and unincorporated areas, during the next 10 years.
- The need for organized community services; the present cost and adequacy of governmental services and controls in the area; probable future needs for those services and controls; probable effect of the proposed incorporation, formation, annexation, or exclusion and of alternative courses of action on the cost and adequacy of services and controls in the area and adjacent areas.
- The effect of the proposed action and of alternative actions, on adjacent areas, on mutual social and economic interests, and on the local governmental structure of the county.

[1] A reorganization involves two or more proposed boundary changes.

- The conformity of both the proposal and its anticipated effects with both the adopted LAFCo policies on providing planned, orderly, efficient patterns of urban development, and the policies and priorities in Government Code Section 56377.
- The effect of the proposal on maintaining the physical and economic integrity of agricultural lands, as defined by Government Code Section 56016 to mean land currently used for the purpose of producing an agricultural commodity for commercial purposes, land left fallow under a crop rotational program, or land enrolled in an agricultural subsidy or set-aside program.
- The definiteness and certainty of the boundaries of the territory, the nonconformance of proposed boundaries with lines of assessment or ownership, the creation of islands or corridors of unincorporated territory, and other similar matters affecting the proposed boundaries.
- A regional transportation plan adopted pursuant to Government Code Section 65080, and its consistency with city or county general and specific plans.
- The SOI of any local agency which may be applicable to the proposal being reviewed.
- The comments of any affected local agency or other public agency.
- The ability of the newly formed or receiving entity to provide the services that are the subject of the application to the area, including the sufficiency of revenues for those services following the proposed boundary change.
- Timely availability of water supplies adequate for projected needs as specified in Government Code Section 65352.5.
- The extent to which the proposal will affect a city or cities and the county in achieving their respective fair shares of the regional housing needs.
- Any information or comments from the landowner or landowners, voters, or residents of the affected territory.
- Any information relating to existing land use designations.
- The extent to which the proposal will promote environmental justice.
- Information contained in a local hazard mitigation plan, information contained in a safety element of a general plan, and any maps that identify land as a very high fire hazard zone or maps that identify land determined to be in a State Responsibility Area (SRA).

Additionally, the Commission must measure a proposal's consistency with its adopted policies when reviewing an application for a change of organization or reorganization. The following San Joaquin LAFCo General Standards for Annexation and Detachment are relevant to this analysis:[2]

1. Spheres and Municipal Service Reviews

The annexation or detachment must be consistent with the internal planning horizon of the SOI. The land subject to annexation shall normally lie within the first planning increment (5–10 year) boundary. The annexation must also consider the applicable Municipal Service Review. An

[2] San Joaquin County Local Agency Formation Commission (LAFCo). 2012. Change of Organization Policies and Procedures. December 14.

annexation shall be approved only if the Municipal Services Review and the SOI Plan demonstrates that adequate services can be provided with the timeframe needed by the inhabitants of the annexed area. If detachment occurs, the sphere will be modified.

LAFCo generally will not allow spheres of influence to be amended concurrently with annexation proposals. Proposed annexations of land that lie outside of the first planning horizon (5–10 year) are presumed to be inconsistent with the SOI Plan. In such a case, the agency must first request LAFCo to consider a sphere amendment pursuant to the above policies. If the amendment is approved, the agency may then proceed with the annexation proposal. A change of organization or reorganization will not be approved solely because an area falls within the SOI of any agency.

As an exception to the presumed inconsistency mentioned above, Master Plan and Specific Plan developments may span several planning horizons of the SOI. Annexation of the entire project area may be desirable in order to comprehensively plan and finance infrastructure and provide for amenity-based improvements. In these cases, no amendment of the planning horizon is necessary, provided project phasing is recognized in the SOI Plan.

2. Plan for Services

Every proposal must include a Plan for Services that addresses the items identified in Section 56653 of the Government Code. The Plan for Services must be consistent with the Municipal Service Review of the Agency. Proponents must demonstrate that the city or special district is capable of meeting the need for services.

3. Contiguity

Territory proposed to be annexed to a city must be contiguous to the annexing city or district unless specifically allowed by statute. Territory is not contiguous if the only connection is a strip of land more than 300 feet long and less than 200 wide, that width to be exclusive of highways. The boundaries of a proposed annexation or reorganization must not create or result in areas that are difficult to serve.

5. Progressive Urban Pattern

Annexations to agencies providing urban services shall be progressive steps toward filling in the territory designated by the affected agency's adopted SOI. Proposed growth shall be from inner toward outer areas.

6. Piecemeal Annexation Prohibited

LAFCo requires annexations and detachments to be consistent with the schedule for annexation that is contained in the agency's SOI Plan. LAFCo will modify small piecemeal or irregular annexations, to include additional territory in order to promote orderly annexation and logical boundaries, while maintaining a viable proposal. In such cases, detailed development plans may not be required for those additional areas but compliance with CEQA is required.

10. Definite and Certain Boundaries

All boundaries shall be definite and certain and conform to lines of assessment or ownership. The Commission's approval of boundary change proposals containing split parcels will typically be subject to a condition requiring the recordation of a parcel map, lot line adjustment or other instrument to avoid creating remnants of legal lots.

11. Service Requirements

An annexation shall not be approved merely to facilitate the delivery of one or a few services to the detriment of the delivery of a larger number of services or service more basic to public health and welfare.

12. Adverse Impact of Annexation on the Other Agencies

LAFCo will consider any significant adverse effects upon other service recipients or other agencies serving the area and may condition any approval to mitigate such impacts. Significant adverse effects shall include the effect of proposals that negatively impact special districts' budgets or services or require the continuation of services without the provision of adequate funding. LAFCo will not approve detachments from special districts or annexations that fail to provide adequate mitigation of the adverse impact on the district. LAFCo may determine an appropriate temporary mitigation, if any, and impose that temporary mitigation to the extent it is within its powers. If the needed mitigation is not within LAFCo's authority and approval would, in the opinion of the Commission, seriously impair the District's operation, the Commission may choose to deny the application.

13. District's Proposal to Provide New, Different, or Divestiture of a Particular Function or Class of Services

In addition to the Plan for Services specified in Section 2 of these Policies and Procedures any application for a new, different, or divestiture of a service shall also include the requirements outlined in Section 56824.12 of the Government Code. Applications for such request will be considered a change of organization and shall follow the requirements of such an application as outlined in the Cortese-Knox-Hertzberg Act and within these policies and procedures. The factors enumerated in Sections 56668 and 56824.14 of the Government Code shall be considered by the Commission at the time of consideration of the application for such functions.

The following LAFCo General Standards for City Annexations are relevant to this analysis:[3]

1. Annexation of Streets

Annexations shall reflect the logical allocation of streets and right-of-way as follows:

- Territory should be included within the annexation to assure that the city reasonably assumes the burden of providing adequate roads to the property to be annexed. LAFCo will require cities to annex streets where adjacent lands that are in the city will generate additional traffic or where the annexation will isolate sections of county road. Cities shall include all contiguous public roads that

[3] San Joaquin County Local Agency Formation Commission (LAFCo). 2012. Change of Organization Policies and Procedures. December 14.

can be included without fragmenting governmental responsibility by alternating city and county road jurisdiction over short section of the same roadway.

- When a street is a boundary line between two cities the centerline of the street may be used as the boundary or may follow a boundary reached by agreement of the affected cities.

2. Pre-zoning Required

The Cortese-Knox-Hertzberg Act requires the City to pre-zone territory to be annexed, and prohibits subsequent changes to the General Plan and/or pre-zoning designations for a period of two years after completion of the annexation, unless the city council makes a finding at a public hearing consistent with the provisions of Government Code Section 56375. In instances where LAFCo amends a proposal to include additional territory, the Commission's approval of the annexation will be conditioned upon the pre-zoning of the new territory.

The City of Tracy prepared a Municipal Services Review (MSR) for the San Joaquin LAFCo in 2019. The MSR provides the required information for project annexation. As a responsible agency, LAFCo will utilize this Draft EIR to make the CEQA findings required to approve the reorganization proposal for the project, and will utilize the MSR as well as the proposed Plan for Services and other application materials in considering the merits of the reorganization request. A copy of the NOP was sent to LAFCo during the NOP scoping period, and LAFCo did not comment on the proposed project.

San Joaquin County Airport Land Use Compatibility Plan

The SJCOG, which serves as the Airport Land Use Commission (ALUC) for San Joaquin County, amended its Countywide Airport Land Use Compatibility Plan (ALUCP) in 2018. The intention of the Countywide ALUCP is to protect and promote the safety and welfare of residents and airport users near public use airports in the County, while promoting continued operation of those airports. Specifically, the Countywide ALUCP seeks to protect the public from adverse effects of airport noise, ensure that people and facilities are not concentrated in areas susceptible to aircraft accidents, and ensure that no structures or activities encroach upon or adversely affect use of navigable airspace. A copy of the NOP was sent to SJCOG during the NOP scoping period, and SJCOG did not have comments related the ALUCP.

Regardless of location within the County, ALUC review is required in addition to Federal Aviation Administration (FAA) notification in accordance with Code of Federal Regulations, Part 77, for any proposal for construction or alteration under the following conditions, none of which apply to the proposed project:

a) If requested by the FAA.

b) Any construction or alteration that is more than 200 feet above ground level at its site.

c) Any construction or alteration that exceeds an imaginary surface extending outward and upward at any of the following slopes:
   - 100 to 1 for a horizontal distance of 20,000 feet of a public use or military airport from any point on the runway of each airport with its longest runway more than 3,200 feet.
   - 50 to 1 for a horizontal distance of 10,000 feet of a public use or military airport from any point on the runway of each airport with its longest runway no more than 3,200 feet.

- 25 to 1 for a horizontal distance of 5,000 feet of the nearest takeoff and landing area of a public use heliport.

d) Any highway, railroad or other traverse way whose prescribed adjusted height would exceed the above noted standards.

e) Any construction or alteration located on a public use airport or heliport regardless of height or location.

City of Tracy General Plan

The project site is designated under the City's General Plan as Industrial. Primary land uses allowed under this designation consist of flex/office space, manufacturing, warehousing and distribution, and ancillary uses for workers' needs (e.g., restaurants, parks, consumers services, etc.).

The General Plan establishes the following guiding goals, objectives and implementing policies associated with land use planning that are relevant to this analysis:

Goal LU-2—Expanded economic opportunities in Tracy

Objective LU-2.1 Balance residential development with jobs, retail growth and the ability to provide services.

Policy

Policy P1 The City's priorities for future growth, in order of priority, are job-generating development to match the skills of Tracy residents; diversification of housing types suitable for Tracy's workforce, including those types suitable for Tracy's workforce; and continued growth of the retail base.

Objective LU-2.3 Expand the City's industrial base.

Policy

Policy P1 The Northeast Industrial Area should contain a mix of heavy industrial, light industrial, warehouse, and distribution users to maximize rail and highway access on large parcels of land. The Northeast Industrial Area should also contain commercial uses and services to meet the daily needs of workers.

Goal LU-6—Land development that mitigates its environmental, design and infrastructure impacts

Objective LU-6.1 Minimize the impact of industrial development or aggregate mining on adjacent uses.

Policies

Policy P1 New industrial or mining uses shall be designed to not adversely impact adjacent uses, particularly residential neighborhoods, with respect to, but not limited to, noise, dust and vibration, water quality, air quality, agricultural resources and biological resources.

Policy P1 Uses that are compatible with the noise, air quality and traffic impacts associated with freeways, such as auto-oriented commercial and industrial uses, should be located near and along freeway corridors whenever possible.

Goal LU-8—No urbanization in unincorporated County areas as defined by this General Plan or the San Joaquin County General Plan, whichever is more restrictive, without annexation to the city, a pre-annexation agreement, or a letter of support from the City.

Northeast Industrial Specific Plan

The NEI Specific Plan describes specific land uses that are Permitted (P) and Conditionally Permitted (C) under each land use designation. All LI uses within the NEI Specific Plan area are subject to compliance with the NEI Specific Plan Environmental Performance Standards. The following table from the NEI Specific Plan shows permitted and conditionally permitted land uses for the LI designation as provided in Table 3.11-2.[4]

Table 3.11-2: Permitted and Conditionally Permitted Land Uses for the Light Industrial Land Uses Designation

Land Uses	Permitted and Conditionally Permitted Land Uses
Agricultural, including dairies	P
Accessory uses and structures; not including warehouses located on the same site as a permitted use	P
Administrative, executive, research, medical offices	P
Call centers	P
Accessory uses and structures located on the same site as a conditional use	C
Warehousing and distribution facilities	P
Manufacturing, repair, assembly, or packaging of products from previously prepared materials, such as cloth, plastic, leather, or semi-precious metals or stones, but not including such operations such as saw or planning mills, any manufacturing involving primary production of wood, metal, or chemical products from raw materials	P
Manufacture of food products, pharmaceuticals, biotechnology products and the like, but not including fish or meat products, sauerkraut, vinegar, or the like, or rendering or refining of fats and oils.	P
Laboratories, including chemical, physical materials testing, electronic, agricultural, photographic film processing, and general research	P
Electrical industrial apparatus manufacturing, service, and repairs, including motors, generators, welding equipment, electrical transmission and distribution equipment, and turbines and pumps.	P
Manufacture, repair of optical electronic, timing, and measuring instruments	P
Dairy products plants	P

[4] City of Tracy. 2012. Northeast Specific Plan. July 17.

Land Uses	Permitted and Conditionally Permitted Land Uses
Machine shops	P
Heating, plumbing, and ventilating equipment manufacturing, servicing, repairs	P
Refrigerator, furnace, water heater, and other household appliance manufacturing, service and repairs, not incidental to retail sales	P
Furniture and cabinet assembling whose activities are carried on entirely within an enclosed building and which have no construction yards on the lot	P
Parcel delivery service and vehicle storage inside and outside the building	P
Truck terminals	P
Mini storage	P
Equipment storage	P
Janitorial services and supplies	P
Printing, including lithographing, engraving, and other such similar reproduction services	P
Automotive supply stores	C
Rental yards, including the rental of hand tools, garden tools, power tools, trucks, trailers, and other similar equipment	C
Building materials sales, lumberyards (outside storage)	C
Repair, painting, and body work for automotive, motorcycle, and farm machinery	C
Boat sales, service, repair	C
Service stations provided all operations except sales of gas and oil are conducted within an enclosed building. Sales shall be limited to petroleum products and automotive accessories, and retail products typically found in a convenience store.	C
Wholesale trade business	C
Intermediate manufacturing uses involving the processing of raw materials, including food and paper processing, wineries, and concrete mixers	C
Mineral and hydrocarbon extraction	C
Recycling (collection and sorting)	C
Note: P = Permitted Use C = Conditional Use that is permitted upon approval of conditional use permit	

There are also use restrictions in the NEI Specific Plan area as outlined below:

No use shall be permitted to exist or operate on any lot which:

1. Emits dust, sweepings, dirt, cinders, fumes, odors, radiation, gases and vapors, or discharges liquid or solid wastes or other harmful matter into the atmosphere or any body of water which

may, according to the appropriate agency, adversely affect the health and safety persons within the area or the health and safety of persons in adjacent areas or the use of adjacent properties.

2. Discharges waste or any harmful substance, as defined by the Municipal Code, into any public sewer or storm drainage system.
3. Produces intense glare or heat, unless such use is performed only within an enclosed or screened area, and then only in such manner that glare, or heat emitted will not be discernible from any exterior lot line.
4. Creates a sound pressure level in violation of any regulation of any public body having jurisdiction. This requirement shall also be applicable to the disposal of trash and waste materials.
5. Allows the visible emissions of smoke (outside any building) other than the exhausts emitted by motor vehicles or other transportation facilities or any emissions in violation of any regulation of any public body having jurisdiction. This requirement shall also be applicable to the disposal of trash and waste materials.
6. Creates a ground vibration that is perceptible, without instruments, at any point along any of the exterior lot lines.

The NEI Specific Plan establishes development standards and design guidelines for projects within its boundaries. For LI uses, this includes a maximum floor area ratio (FAR) of 0.5 and building height of 60 feet. Other relevant standards and guidelines are included below.

Streetscapes

1. The design of the streetscape should integrate, in a consistent and creative manner, plant materials, paths, berming, lighting, and signage to produce an attractive and functional environment.
2. All landscaping should employ a mix of trees, shrubs, groundcovers and turf, where appropriate. The plant palette should be relatively limited and applied in groupings of similar species rather than a few plants of many different species planted together. The use of water conserving plantings, such as California natives and drought tolerant trees, shrubs, and turf is encouraged, and compliance with the State's water efficient landscape guidelines is required.
3. The use of lawn substitutes is encouraged in all medians and for parkways. The use of turf should be minimized and reserved for areas of high use or visibility and temporary median planting in anticipation of future street widths.
4. Automatic irrigation is required for all landscape areas. Plants should be watered and maintained on a regular basis. Irrigation systems should be designed so as not to overspray walks, buildings, and parking areas, etc. The use of water conserving systems, such as drip irrigation for shrub and tree planting, is encouraged.
5. Tree plantings should reflect street hierarchy with larger trees along arterial streets and smaller trees on industrial streets. Tree plantings shall be symmetrical and of the same species in the parkways on both sides of the streets. One tree species or mixture of species shall be planted

consistently at regular intervals along the entire length of a street. Spacing interval shall be no greater than 40 feet on center. Where trees are planted in medians, the plantings shall be continuous and at regular intervals. Spacing of median trees shall be no greater than 30 feet on center. Different tree species shall be planted at intersections to highlight these areas.

6. Adequate sight lines shall be maintained at all times.

Building Setbacks

7. Building setback from any property line adjacent to a street or Caltrans right-of-way shall be 25 feet minimum. Rear and side yard building setbacks from property lines not adjacent to a street or Caltrans right-of-way shall be 15 feet minimum.

8. A 5 foot wide landscape setback is required along property lines not adjacent to a right-of-way. On the property lines perpendicular to the street frontage on industrial streets, the landscaped setback is only required to a point 150 feet onto the parcel from the street right-of-way or 50 feet back of building face, whichever is greater.

4. Parking shall not be permitted within 15 feet of the office face or portion of a building. On industrial buildings, a 15 foot setback to the parking area shall be provided at building entries.

Parking and On-Site Vehicular Circulation

9. Parking, on-site circulation, and loading area standards shall be as required by the provisions of Title 10, Article 26, Off-Street Parking Requirements of the Tracy Municipal Code unless modified below or as part of the Development Review approval.

10. Parking lots containing 10-20 spaces may include a maximum of 20 percent of the total number of spaces for compact cars. These spaces shall be designed and marked in accordance with City standards and distributed throughout the lot. Parking areas containing 20 or more spaces may include a maximum of 30 percent of the total number of spaces for compact cars.

Loading and Unloading Spaces

11. Sufficient off-street loading and unloading spaces shall be provided on each site, and adequate provisions and space shall be made for maneuvering freight vehicles and handling all freight. All loading activity, including turnaround and maneuvering, shall be made on-site.

3. In industrial areas, truck loading areas and docks shall not be permitted between building(s) and the street unless the building(s) are set back from the curb a minimum of 125 feet and doors are screened by landscaping, berms, and/or fences.

4. Buildings, structures, and loading facilities shall be designed and placed upon the site so that vehicles, whether rear loading or side loading, may be loaded or unloaded at any loading dock, door, or area without extending beyond the property line.

Landscaping

Minimum on-site landscaping requirements shall be established by Off-Street Parking Requirements (Title 10, Article 26 of the Tracy Municipal Code), except as modified below.

Summary of Requirements	*Industrial*
Landscaped frontage setback	15 feet
Minimum number of trees in parking area	1 tree per 10 spaces
Percentage of landscaping in parking areas with over 60 cars	10 percent

5. While commercial uses benefit from a well-landscaped parking area and visibility from the street, views of industrial uses benefit from a more generously landscaped streetscape. Thus, parking lot landscaping requirements for industrial uses may be reduced as specified in the Off-Street Parking Requirements in order to create a large landscape setback along the street. These provisions allow the reduction of 50 percent of the required landscaping based on the provision of a 15 foot landscape setback along the street frontage. The 15 foot strip may be included in the calculation of the total parking lot landscaping requirement. The remainder of the landscaping requirement must be distributed over the lot(s) to provide shade and landscape building frontage. Canopy trees shall be evenly distributed throughout the parking area to provide shade.
6. On-site landscaping along right-of-way between property lines and buildings, parking lots, or vehicular circulation improvements shall be installed by the property owner. This landscaping shall be designed as an extension of the adjacent public right-of-way landscaping. Completion of landscaping on the site shall be simultaneous with completion of the building and other improvements on the site.
7. Landscaping shall not obstruct sight lines at street or driveway intersections.
8. In place of the wheel stops at parking lots, landscape areas and pedestrian walkways may be extended not more than 2 feet into required parking spaces, to include a 6-inch concrete curb. In such cases, no credit toward parking lot landscape requirements shall be given for the resulting additional landscaping.
9. Screening of the parking area from public right-of-way in industrial areas shall be provided with a 2.5 to 3-foot-high element, measuring from the top of the parking area pavement. Screening may consist of one or a combination of the following:

   a. Berms landscaped with ground cover, trees, and shrubs;
   b. Solid, low profile, decorative masonry walls;
   c. Evergreen shrubbery which, when solely used as screening, shall be continuously maintained to provide solid screening.

10. Generous landscaping screening is required adjacent on all street frontages for industrial areas. These areas should be landscaped with a combination of trees, shrubs, and ground cover to soften views of parking areas.
11. Tree planting and selection and massing should be compatible with streetscape plantings. Provide minimum one tree per 400 square feet of landscape setback. The plant palette should be relatively limited and applied in groupings of similar species rather than a few plants of many different species planted together.

12. The use of water conserving plantings, such as California natives and drought tolerant trees, shrubs, and turf is encouraged. The use of turf in the narrow planting islands is discouraged.
13. Live plant materials shall be used in all landscaped areas. The use of gravel, colored rock, bark, and other similar materials are not acceptable as a sole groundcover material.
14. All trees shall be of 24 inch box size minimum at planting with a minimum branching height 5 years after installation of 10 feet above road or parking surfaces and 6 feet at pedestrian areas. Shrubs shall be of 5 gallon size minimum with a maximum on-center spacing of 24 inches. Likewise, groundcover may be planted at 1 gallon size minimum with a maximum spacing of 12 inches on center.
15. Automatic irrigation is required for all landscaped areas. Irrigation systems shall be designed so as not to overspray walks, buildings, and parking areas.

Screening and Storage

16. All exterior trash areas, storage structures, and service areas shall be screened from public view with a wall or fence of a minimum height of 8 feet above the street curb level. Storage areas shall be set back a minimum of 50 feet from streets, unless fully enclosed in an architecturally compatible enclosure.
17. No storage areas are allowed within the landscape easements, front setbacks, or side or rear yard landscaped buffers.
18. Roof-mounted equipment shall be screened from street view. Pad-mounted transformers, utility connections, and meter boxes shall be screened and integrated into the site plan.
19. The design of masonry walls, fencing, trash enclosures, and similar accessory site elements should be compatible with the architecture of the building and should use similar materials. Where masonry walls are along property frontage, they should enhance the entrance to the property and should not impair traffic safety by obscuring views. Long expanses of wall surfaces should be architecturally designed to prevent monotony.
20. The use of chain link fences shall be discouraged, and no chain link fences shall be visible from any public right-of-way.

City of Tracy Municipal Code

The Municipal Code regulates land use and development activities within City limits. Title 10 contains the Zoning Ordinance, which establishes zoning districts, allowable land use activities, and development standards. The NEI Specific Plan serves as both a planning and regulatory document (by serving as the zoning) for lands within the NEI Specific Plan area. However, as set forth more fully in the NEI Specific Plan, the City of Tracy Municipal Code supplements the NEI Specific Plan with respect to certain provisions that are not expressly addressed in the NEI Specific Plan.

Northeast Industrial Specific Plan Zoning

The project site would be pre-zoned "Northeast Industrial Specific Plan."[5] The Municipal Code defines this zoning district as such:

> The zoning within the Northeast Industrial Specific Plan Zone is governed by the Northeast Industrial Area Specific Plan. In addition, the I-205 overlay zone applies to portions of this Northeast Industrial Specific Plan zone.

The project site would be pre-zoned LI under the NEI Specific Plan. This land use category/zoning and what it allows are described below:[6]

> Light industrial land uses would be compatible with existing industrial land uses…as well as with freeway noise, and rail noise and vibration.
>
> Several types of light industrial land uses are appropriate in the Northeast Industrial Area. It is anticipated that warehousing and distribution businesses with low employee densities will be the predominant development type. This development pattern is similar to those that have located in Tracy in recent years.
>
> The City of Tracy is also interested in attracting higher employee density businesses to the area. It is anticipated that there may be a future demand for a "Flex-Tech" development that would accommodate research & development businesses and call centers.

The proposed project would be located within the I-205 overlay zone, which was established to maximize the aesthetic appearance of development and the economic development potential of lands along the I-205 corridor. The proposed project would be subject to the development review and conformance to the applicable Citywide Design Standards, including the I-205 overlay zone standards.

Off-Street Parking Requirements

The NEI Specific Plan states that parking standards shall be as required by Chapter 10.08 Article 26 of the Municipal Code, which sets forth required amounts of vehicular and bicycle parking. The Municipal Code requires an industrial warehouse to provide one space per 1,000 square feet of the first 20,000 square feet of gross floor area, plus one space per 2,000 square feet of the second 20,000 square feet of gross floor area, plus one space per 4,000 square feet of the remaining square feet of gross floor area.[7] Additionally, parking lots with over 40 automobile spaces are required to provide bicycle parking at 5 percent of the number of automobile spaces.[8]

[5] As noted in Section 2.0, Project Description, in connection with this pre-zoning, the NEI Specific Plan would be amended to include the project site within the NEI Specific Plan area boundaries (along with other conforming amendments to ensure consistency).
[6] City of Tracy. 2012. Northeast Industrial Specific Plan. July 17.
[7] City of Tracy. 2018. Municipal Code Section 10.08.3480—Parking spaces required.
[8] City of Tracy. Municipal Code Section 10.08.3510—Bicycle parking.

3.11.4 - Impacts and Mitigation Measures

Significance Criteria

The City is utilizing State CEQA Guidelines Appendix G as thresholds of significance for evaluating impacts for the proposed project. According to CEQA Guidelines Appendix G Environmental Checklist, to determine whether impacts related to land use and planning are significant environmental effects, the following questions are analyzed and evaluated. Would the proposed project:

a) Physically divide an established community?
b) 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?

Approach to Analysis

Analysis in this section focuses on whether project implementation would physically divide an established community and whether the proposed project would conflict with land use plans, policies, or regulations adopted to avoid or mitigate an environmental effect. Conflicts and inconsistencies with a policy, in and of themselves, do not constitute significant environmental impacts for purposes of CEQA. Rather, it is only where (1) there is a conflict or inconsistency that (2) involves a policy that was adopted for the purpose of avoiding or mitigating an environmental effect, and (3) therefore a conflict with such a policy results in a significant environmental impact. Environmental impacts that would result from the proposed project in other environmental topic areas are discussed throughout Chapter 3 of this Draft EIR. The potential for land use impacts was assessed through review of applicable land use policy documents.

Impact Evaluation

Divide an Established Community

Impact LAND-1: The proposed project would not physically divide an established community.

Construction

Impacts related to physical division of an established community are limited to operational impacts. No respective construction impacts would occur.

Operation

The physical division of an already established community typically refers to construction of a linear feature, such as an interstate highway, railroad tracks, or the removal of a means of access that would impact mobility within an existing community and an outlying area. The proposed project consists of multiple industrial warehouse and distribution facilities and related improvements along with other light industrial uses on parcels just outside City limits, but within the City's SOI. The project site is currently developed with agricultural uses, including a few residential structures and multiple accessory agricultural structures. The development of the proposed project would not involve construction of any type of linear feature that would impair mobility with an existing community, nor would it remove a means of access in a manner that would impede travel or otherwise constitute division of an established community. Rather, the proposed project would be designed in accordance with relevant NEI Specific

Plan policies, which would help ensure a cohesive, integrated site and circulation plan, taking into account ready access to nearby transportation corridors. Therefore, impacts would be less than significant.

Level of Significance

Less Than Significant

Conflict with Applicable Plans, Policies, or Regulations

Impact LAND-2:	**The proposed project would not cause a significant environmental impact due to conflict with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.**

Construction

Impacts related to consistency with applicable land use plans and policies are limited to operational impacts. No respective construction impacts would occur.

Operation

Local Agency Formation Commission General Standards for Annexation Consistency

Spheres and Municipal Service Reviews

As noted above, the SOI is the plan for the probable physical boundaries and service area of a local agency, as determined by LAFCo. The project site is within the City's existing SOI, and therefore has already been contemplated for future inclusion within the City's municipal boundaries. The City's inclusion of the project site via its designation under the City's General Plan as Industrial is consistent with the land use vision for the proposed project and the SOI.

In addition, this Draft EIR analyzes the proposed project with respect to the 2019 City MSR and demonstrates that adequate services can be provided (see Sections 3.13, Public Services, and 3.16, Utilities and Service Systems). The 2019 MSR analyzed all land within the City's SOI and the project site is identified as being within the City's existing SOI, located in planning subarea 16. The City's MSR update determined that the City would have adequate capacity and funds to support expanded services as part of the anticipated development of the SOI. This included a capital improvement program that identified and planned funds for specific infrastructure improvements and master plans that identified necessary infrastructure upgrades. As noted above, the City has planned for this type of light industrial development on the project site as indicated by its urban General Plan designation of Industrial.

Accordingly, the proposed project would be consistent with the LAFCo policy requiring a Municipal Service Review and Sphere of Influence Plan to demonstrate that adequate services can be provided with the timeframe needed by the inhabitants of the annexed area. As discussed in Section 3.16, Utilities and Service Systems, the City can accommodate wastewater, water, and storm drainage demands of the proposed project, and the proposed project has incorporated as design features the necessary infrastructure and improvements to ensure the proposed project is adequately served by the various City services and utilities and constructed in accordance with all applicable City Master Plans and other requirements and specifications.

Contiguity

The project site is contiguous to the existing City of Tracy limits and the NEI Specific Plan area because it abuts and shares a common boundary with the City. Moreover, the boundaries of the proposed reorganization, which would involve the annexation of the project site into the City's municipal boundaries (along with the related detachment from the Fire District) would not create or result in areas that are difficult to serve, as explained more fully in the 2019 MSR.

Progressive Urban Pattern

The project site is within the City's existing SOI (within the 10-year planning horizon), and would represent a progressive step toward filling in the SOI in this area of the City, consistent with the longtime planning vision of this City for the area as reflected in the City's General Plan, which has designated the project site for industrial uses. Additionally, the project site is adjacent to existing City limits and is furthering outward growth that is not isolated, and would not constitute "leapfrog" development or otherwise facilitate urban sprawl. Rather, the proposed reorganization would reflect a logical and orderly extension of the City's boundaries.

Piecemeal Annexation Prohibited

While the proposed reorganization only involves the project site, it does not reflect a piecemeal annexation approach. The project site has been included within the City's SOI for 29 years, and has been designated for urban development under the City's General Plan for 29 years. The proposed project would be consistent with the General Plan, which provides guidance for development based on anticipated growth in both jobs and the resident population. And as noted above, the proposed reorganization reflects a logical and orderly extension of urban growth and the City's boundaries, which would ensure the project site is developed in a comprehensive and thoughtful manner consistent with other nearby lands in the NEI Specific Plan area.

Definite and Certain Boundaries

It is anticipated that project boundaries that would be presented in the reorganization application would be definite and conform to Assessor's Parcel Number (APN) lines and/or ownership of legal lots and would not contain any split parcels.

Service Requirements

As discussed in detail in the 2019 MSR, the City has the capacity to adequately serve the areas within its municipal boundaries as well its existing SOI. Moreover, the project site is contiguous to the City's municipal boundaries and other existing urban development, which facilitates the efficient extension of existing utilities. As described more fully herein, the proposed project would connect to and/or otherwise utilize existing utility lines for service to the proposed project, and would also construct and/or pay applicable development impact fees toward the construction of identified infrastructure and improvements, consistent with the City's Master Plans. Please refer to Section 3.16, Utilities and Service Systems, for an in-depth discussion on service delivery.

Adverse Impact of Annexation on the Other Agencies

As discussed in detail in the 2019 MSR, the City has the capacity to adequately serve the areas within its municipal boundaries as well its existing SOI without impairing the City's ability to serve existing and

other proposed uses, and the proposed reorganization reflects a logical and orderly extension of service boundaries and would result in the efficient delivery of services. All applicable impact fees would be paid by each co-applicant for individual development proposals within the project site, which would further ensure that new development "pays its own way."

Annexation of Streets

The reorganization proposal reflects a logical and orderly extension of the City's boundaries and would include the annexation of territory such that the circulation plan and street network would not fragment governmental responsibility between the City and the County. For example, Paradise Road, which runs along the project site boundary (from Grant Line Road to I-205) would be annexed into the City as part of the proposed project as shown in Chapter 2, Project Description, Exhibit 2-8a.

Pre-zoning Required

The project site would be pre-zoned NEI Specific Plan and this zoning designation would not be permitted to be changed within two years of the completion of the reorganization.

Airport Land Use Compatibility Plan Consistency

The proposed project is not within the Airport Land Use Compatibility Zone. The proposed project does not reach the standard height and distance from an airport that would require ALUC review and FAA notification.

General Plan Consistency

The County General Plan land use designation for the project site is A/UR. However, with project approval and completion of the related reorganization proposal, the County General Plan would no longer apply to the proposed project, as the project site would be annexed into the City of Tracy. For these reasons, the City is serving as the lead agency and is processing the land use entitlement applications for the proposed project.

That said, the County's A/UR land use designation is designed to identify existing agricultural land intended for future urban development, and therefore the proposed project is consistent in this regard. This is consistent with the existing City of Tracy General Plan land use designation of Industrial for the project site; this reflects the planned urban development vision for the project site, which contemplates a variety of light industrial uses including warehousing and distribution. Therefore, the proposed project is consistent with the City's existing urban land use designation.

One of the factors LAFCo must consider when reviewing a proposal for reorganization is the effect of the proposal on maintaining the physical and economic integrity of agricultural lands, as defined by Government Code Section 56016. Similar to the discussion above, although the proposed project would result in a reduction of agricultural land, the proposed project is consistent with the City of Tracy General Plan land use designation of Industrial for the project site and reflects the planned urban development vision for the project site.

Table 3.11-3 summarizes the proposed project's consistency with relevant goals, objectives, and policies of the City General Plan.

Table 3.11-3: General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
2—Land Use	Objective LU-1.1	Establish a clearly defined urban form and city structure.	**Consistent:** The proposed project contains provisions that address land use, design, infrastructure, and phasing to ensure that development occurs in a logical, orderly, and planned manner. The proposed project represents a logical continuation of the existing and planned development pattern envisioned in the General Plan and the NEI Specific Plan (as amended).
	LU-1.1 P2	The City shall maintain a Sphere of Influence that is consistent with the long-term land use vision in this General Plan.	**Consistent:** The proposed project is contained within the City of Tracy's existing SOI and is consistent with all applicable development regulations, including the NEI Specific Plan (as amended). The proposed project does not propose any amendment of the City's SOI.
	Goal LU-2	Expanded economic opportunities in Tracy.	**Consistent:** The proposed project would generate both temporary and permanent local jobs and thus expand economic opportunities in the City, and is consistent with the planned growth anticipated under the General Plan. In addition, buildout of the proposed project would generate significant tax revenue for the City's benefit.
	Objective LU-2.1	Balance residential development with jobs, retail growth and the ability to provide services.	**Consistent:** The proposed project involves only nonresidential, employment-generating uses that would create significant temporary and permanent local jobs and would therefore contribute to the jobs/housing balance.
	LU-2.1 P1	The City's priorities for future growth, in order of priority, are job-generating development to match the skills of Tracy residents; diversification of housing types suitable for Tracy's workforce, including those types suitable for Tracy's workforce; and continued growth of the retail base.	**Consistent:** As a significant employment-generating use, the proposed project would create a substantial number of temporary and permanent jobs consistent with the skills and availability of the local workforce and assist in fulfilling the City's first priority for growth anticipated by the General Plan. Given the nature of the proposed project, it is anticipated that the employees would

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
			likely come primarily from the local job market. Moreover, the proposed project would help to support the City's jobs-to-housing ratio (goal ratio of 1:5) as established by the California Department of Housing and Community Development (HCD); current ratio: 1.3[1,2,3]
	Objective LU-2.3	Expand the City's industrial base.	**Consistent:** The proposed project consists of a significant industrial development, and therefore would expand the City's industrial base consistent with the planned growth anticipated in the General Plan.
	LU-2.3 P1	The Northeast Industrial Area should contain a mix of heavy industrial, light industrial, warehouse, and distribution users to maximize rail and highway access on large parcels of land. The Northeast Industrial Area should also contain commercial uses and services to meet the daily needs of workers.	**Consistent:** The City has already designated the project site as Industrial under its General Plan, and the proposed project would be annexed into the City. In addition, the proposed project involves the amendment of the NEI Specific Plan to incorporate the project site; the proposed project would then be governed by the relevant provisions of this plan and would contribute additional light industrial and warehouse and distribution uses consistent with the land use vision.
	Goal LU-6	Land development that mitigates its environmental, design and infrastructure impacts.	**Consistent:** As detailed herein, development of the proposed project would mitigate, to the extent feasible, its significant environmental and infrastructure impacts. Moreover, project development would meet all of the then-applicable requirements and standards for energy conservation and sustainability to enhance sustainable uses and reduce GHG emissions, decrease water consumption, and energy consumption.
	Objective LU-6.1	Minimize the impact of industrial development or aggregate mining on adjacent uses.	**Consistent:** This Draft EIR analyzes impacts to surrounding areas where applicable and utilizes feasible mitigation measures to minimize or avoid significant or potentially significant environmental impacts to the extent required. Moreover, the proposed project would be developed within the NEI Specific Plan area (as

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
			amended) in accordance with the planned industrial vision for these lands.
	LU-6.1 P1	New industrial or mining uses shall be designed to not adversely impact adjacent uses, particularly residential neighborhoods, with respect to, but not limited to, noise, dust and vibration, water quality, air quality, agricultural resources and biological resources.	**Consistent:** Please see Sections 3.12, Noise; Section 3.10, Hydrology and Water Quality; Section 3.3, Air Quality; Section 3.2, Agriculture and Forestry Resources; and Section 3.4, Biological Resources. As discussed in each topical section, the proposed project includes design features and feasible mitigation measures that ensure the proposed project is compatible with adjacent uses. Moreover, the proposed project would be developed within the NEI Specific Plan area (as amended) in accordance with the planned industrial vision for this area.
	LU-6.1 P2	All proposed development shall comply with existing applicable County and State waste management plans and standards.	**Consistent:** The proposed project would participate in commercial solid waste collection provided by the City and be required to comply with all applicable standards and plans. See Section 3.16, Utilities and Service Systems for further discussion.
	LU-6.1 P3	Use of berms, landscaped buffer zones, sound walls, and other similar measures between quarrying operations and noise-sensitive adjacent uses is encouraged to ensure consistency with standards established in City's Noise Element of the General Plan.	**Consistent:** The proposed project does not involve quarrying uses. Furthermore, it would be located at a distance from the nearest sensitive receptor such that noise impacts associated with daily operations would be less than significant and consistent with standards established in the City's Noise Element and Municipal Code. See Section 3.12, Noise, for further discussion.
	LU-6.2 P1	Uses that are compatible with the noise, air quality and traffic impacts associated with freeways, such as auto-oriented commercial and industrial uses, should be located near and along freeway corridors whenever possible.	**Consistent:** The proposed project would house industrial uses and be located adjacent to I-205. The proposed project would include feasible mitigation measures to reduce impacts related to noise, air quality and traffic, as detailed more fully herein.
	LU-6.4 P1	The City shall ensure that development permitting occurs in a manner to provide public safety in flood-prone areas.	**Consistent:** The proposed project would provide a stormwater detention basin that would be designed in accordance with applicable standards and

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
			requirements to accommodate 100-year flood flows and convey stormwater off-site via the Eastside Channel to prevent flooding. Please refer to Section 3.10, Hydrology and Water Quality, for additional information.
	Goal LU-8	No urbanization in unincorporated County areas as defined by this General Plan or the San Joaquin County General Plan, whichever is more restrictive, without annexation to the city, a pre-annexation agreement, or a letter of support from the City.	**Consistent:** The project site is currently unincorporated County land but would be annexed into the City of Tracy upon LAFCo approval, consistent with the City's current General Plan land use designation of Industrial for the project site.
	LU-8.1 P1	The City shall strongly oppose all development in the area defined by Goal LU-8 unless the property is annexed, unless there is a pre-annexation agreement, or unless San Joaquin County receives a letter of support from the City of Tracy.	**Consistent:** The project site would be annexed into the City of Tracy upon approval by LAFCo.
	LU-8.1 P3	The City shall support existing San Joaquin County agricultural land use designations in the Planning Area and strongly oppose changes that result in increased urbanization.	**Consistent:** The project site would be annexed into the City of Tracy upon approval by LAFCo, and is designated in the City General Plan for industrial uses. Further, the County land use designation for the site of A/UR identifies and reserves this agricultural land for future urban development.
3—Community Character	Goal CC-1	Superior design quality throughout Tracy.	**Consistent:** The NEI Specific Plan, which would apply to the proposed project, contains development standards and design guidelines that ensure high-quality design and development that would not conflict with applicable regulations governing scenic quality. Refer to Section 3.1, Aesthetics for further discussion.

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
7—Open Space and Conservation	OSC-4.4 P.1	The City of Tracy shall oppose urbanization in lands outside of the Sphere of Influence, with particular emphasis on the preservation of undeveloped lands between the City of Tracy and the adjacent communities of Mountain House and Lathrop.	**Consistent:** The proposed project is located within the City's SOI (10-year planning horizon).
	OSC-5.3 P.6	Future development projects shall consider the following design features, during the Specific Plan, PUD, subdivision, and design/development review: solar access and orientation, natural ventilation, energy efficient landscaping and energy efficient and conserving building design and technologies.	**Consistent:** The proposed project's buildings would be designed and constructed in accordance with the City's latest adopted energy efficiency standards, which are based on the State's Building Energy Efficiency Standards. These are widely regarded as the most advanced and stringent building energy efficiency standards and compliance would ensure that building energy consumption would not be wasteful, inefficient, or unnecessary.
	PF-1.2 P2	The City shall build and require roadways that are adequate in terms of width, radius and grade to facilitate access by City fire-fighting apparatus, while also maintaining and improving Tracy's neighborhood character and hometown feel.	**Consistent:** The proposed project would be developed within the NEI Specific Plan and would therefore reflect a cohesive circulation plan that adheres to all requirements and standards, including those imposed by the City's Fire Department and the Public Works Improvement Standards for roadway design. All public roads within the project site, including all emergency access roads and any associated gates, would be maintained by the City.
7—Public Facilities and Services	PF-1.2 P5	New developments shall satisfy fire flow and hydrant requirements and other design requirements as established by the Fire Department.	**Consistent:** As part of operation, the proposed project would be required to comply with applicable provisions of the Tracy Municipal Code, the California Building Standards Code (CBC), and the California Fire Code (CFC). Specifically, the proposed project would be required to satisfy the applicable standards for fire safety such as fire flow requirements for buildings, fire hydrant location and distribution criteria, automated sprinkler systems, and fire-resistant building materials. Refer to Section 3.16, Utilities and Service Systems, for additional information.

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
	PF-2.2 P2	Physical site planning should be used as an effective means of preventing crime. This can be achieved by locating walkways, open spaces, landscaping, parking lots, parks, play areas and other public spaces in areas that are visible from buildings and streets.	**Consistent:** All parking lots and landscaping would be located adjacent to the street with buildings centered in the project site, which would enhance visibility. Project lighting would be provided throughout the site to further provide effective site planning, taking into due consideration appropriate safety concerns.
	Objective PF-8.1	Collect, convey, store and dispose of stormwater in ways that provide an appropriate level of protection against flooding, account for future development and address applicable environmental concerns.	**Consistent:** The proposed project would provide a stormwater detention basin that would be designed to meet all applicable standards and requirements and thus accommodate 100-year flood flows and convey stormwater off-site via the Eastside Channel to prevent flooding. Please refer to Section 3.10, Hydrology and Water Quality, for additional information.
	PF-8.1 P3	New permanent stormwater infrastructure shall be designed to serve dual purposes to the extent possible. This includes the following: • Drainage facilities integrated into recreation corridors with bike paths, sidewalks and landscaping. • Drainage channels integrated with transportation and environmental corridors. Stormwater detention basins shall incorporate active and passive recreation areas where feasible. These areas shall not count toward parks dedication requirements.	**Consistent:** Given the industrial nature of the project vicinity and broader NEI Specific Plan area, there are no recreation or environmental corridors on the project site. The proposed project would provide a stormwater detention basin that would be designed to accommodate 100-year flood flows and convey stormwater off-site via the Eastside Channel. Please refer to Section 3.10, Hydrology and Water Quality, for additional information.
	PF-8.1 P6	Design of storm drainage facilities shall be consistent with State and federal requirements, including National Pollutant Discharge Elimination System (NPDES) requirements.	**Consistent:** The proposed project would develop the stormwater detention basin according to all applicable local, State and federal requirements, including, without limitation, City Municipal Code and General Plan standards as well as NPDES requirements. Refer to Section 3.10 Hydrology and Water Quality and Section 3.16, Utilities and Service Systems for further discussion.
	PF-8.1 P7	Planning for stormwater facilities should consider possible future retrofitting needs associated with	**Consistent:** The proposed project would develop the stormwater detention basin according to all applicable local, State and

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
		changing regulations pertaining to stormwater quality, including NPDES requirements.	federal requirements, including, without limitation, City Municipal Code and General Plan standards as well as NPDES requirements. Should these regulations change, the proposed project would be required to retrofit the stormwater detention basin so that it complies with these requirements. Refer to Section 3.10 Hydrology and Water Quality and Section 3.16, Utilities and Service Systems for further discussion.
	PF-8.2 P2	New storm drainage facilities shall meet adopted City standards, including the standards and policies contained in the Storm Water Management Plan, the Storm Drainage Master Plan, and the Parkways Design Manual.	**Consistent:** The proposed project would develop the stormwater detention basin in accordance with the 2012 Storm Drainage Master Plan, and according to all applicable local, State and federal requirements, including City Municipal Code and General Plan standards. Refer to Section 3.10 Hydrology and Water Quality and Section 3.16, Utilities and Service Systems for further discussion.
9—Noise Element	N-1.1 P2	Land uses shall require appropriate interior noise environments when located in areas adjacent to major noise generators.	**Consistent:** The proposed project would be developed in the NEI Specific Plan area, which is planned for industrial uses; in so doing, this type of comprehensive planning helps to alleviate compatibility and adjacency concerns**.** Project land uses would be consistent with surrounding normal noise levels, including other industrial use and interstate noise. Refer to Section 3.12, Noise, for further discussion.
10—Air Quality	Goal AQ-1	Improved air quality and reduced greenhouse gas emissions.	**Consistent:** The proposed project would be subject to various regulatory measures adopted to ensure ambient air quality standards are met to the extent feasible. The proposed project would not be a source of significant toxic or hazardous air pollutants and odors, and was not found to have a significant impact with respect to GHG. Refer to Section 3.3, Air Quality and Section 3.8, Greenhouse Gas, for further discussion.
	AQ-1.2 P1	The City shall assess air quality impacts using the latest version of the CEQA Guidelines and guidelines prepared by	**Consistent:** The proposed project would be subject to various regulatory measures adopted to ensure ambient

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
		the San Joaquin Valley Air Pollution Control District.	air quality standards are met. This Draft EIR evaluated the proposed project's potential air quality impacts pursuant to CEQA and San Joaquin Valley Air Pollution Control District (Valley Air District) Guidelines. Refer to Section 3.3, Air Quality, for further discussion.
	AQ-1.2 P4	New development projects should incorporate energy efficient design features for HVAC, lighting systems and insulation that exceed Title 24.	**Consistent:** The proposed project's buildings, including the HVAC, lighting systems, and insulation, would be designed and constructed in accordance with the City's latest adopted energy efficiency standards, which are based on the State's Building Energy Efficiency Standards. These are widely regarded as the most advanced and stringent building energy efficiency standards and compliance would ensure that building energy consumption would not be wasteful, inefficient, or unnecessary.
	AQ-1.2 P7	Trees should be planted on the south- and west-facing sides of new buildings or building undergoing substantial renovation in order to reduce energy usage.	**Consistent.** Project landscaping trees are included in the project design and would be consistent with the NEI Specific Plan requirements for placing one tree per five parking spaces, and otherwise would comply with all applicable landscaping requirements.

Notes:
[1] California Department of Finance. 2021. City/County Population and Housing Estimates, January 1, 2021.
[2] United States Census. "OnTheMap" Tool. Website: https://onthemap.ces.census.gov/. Accessed August 9,2021.
[3] There were 34,710 jobs and 26,964 dwelling units within the City limits in 2018. This represents a jobs-housing ratio of approximately 1.3, which indicated that there are more jobs than homes in the City.

Northeast Industrial Specific Plan Consistency

Implementation of the proposed project would require an amendment to the NEI Specific Plan to include the project site within its boundaries (and other conforming amendments to ensure consistency). When a project seeks a plan amendment as a component of the project itself, to rectify inconsistency with the existing designation or zoning, the amendment necessitates a legislative policy decision by the City and does not signify a potential environmental effect. As such, the proposed Specific Plan Amendment and pre-zoning, if approved, constitute a self-mitigating aspect of the proposed project that would serve to correct what would otherwise be a conflict.

The proposed project would be designed to incorporate applicable development standards and design guidelines that comply with relevant provisions in the NEI Specific Plan. For example, the individual

development proposal for the Tracy Alliance parcels includes a maximum FAR of 0.5; a maximum height of 60 feet; a minimum setback of 10 feet, all of which comply with the applicable development standards for the LI designation. Land use on the project site would be warehousing or distributing with incorporated office use as permitted for LI (see Table 3.11-1) and/or other light industrial uses that are permitted in the NEI Specific Plan. Accordingly, the proposed project would be consistent with the urban, industrial character of the surrounding NEI Specific Plan area.

Tracy Municipal Code Consistency

Planning and Zoning Code

The project site would be pre-zoned "Northeast Industrial Specific Plan." In connection therewith, the proposed project includes an amendment to the NEI Specific Plan boundaries to incorporate the project site (and other conforming amendments to ensure consistency). With these actions, the provisions of the NEI Specific Plan would serve as zoning for the lands within its boundaries, including the project site. The proposed light industrial, warehouse and distribution uses would be consistent with this zoning.

Development of the proposed project would be required to adhere to all applicable development standards and design guidelines set forth in the NEI Specific Plan and the Municipal Code.

Off-Street Parking Code

Pursuant to Municipal Code Chapter 10.08, Article 26, the proposed project would be required to provide 1,153 automobile spaces and 59 bicycle stalls. The project proposes to meet or exceed these requirements by providing a total of approximately 1,551 automobile parking spaces, 572 trailer parking spaces, and 59 bicycle stalls.

Street Tree Ordinance

Pursuant to Municipal Code Chapter 7.08 Trees and Shrubbery, the applicant of each individual development proposal must submit an application to the Parks and Community Services Department. The Director of Parks and Community Services can authorize or prohibit the tree from being removed and can provide conditions of approval.

Level of Significance

Less Than Significant

3.11.5 - Cumulative Impacts

The geographic scope of this cumulative analysis is the City and its SOI, with a focus on the area surrounding the project site; land use decisions for the proposed project and most other cumulative projects listed in Table 3-1 are made at the City level. Some of the projects listed in Table 3-1 are within County or Caltrans jurisdiction, and land use decisions for those projects are made at the County and State level, respectively. The cumulative setting includes past, present and reasonably foreseeable probable future developments within the City and its SOI.

Development within the City is governed primarily by the City's General Plan and Municipal Code. These guiding regulations and planning documents set forth the land use vision for the community, facilitate logical and orderly development, and ensure consistency with the General Plan as required under State

Planning and Zoning laws. All cumulative developments would be required to be consistent with and conform to these planning documents and governing regulations. For cumulative projects, the lead agency is required to issue findings demonstrating consistency with applicable General Plan and Municipal Code requirements to be approved. Projects listed in Table 3-1 that are within the boundaries of the Tracy Municipal Airport Land Use Compatibility Zone would be required to demonstrate consistency with the applicable airport land use compatibility criteria. For cumulative projects that are within the City's SOI and would be annexed into the City, these would be required to demonstrate consistency with applicable provisions of LAFCo regulations and local LAFCo policies.

For the foregoing reasons, there would not be a significant cumulative impact related to division of an established community to a level of less than significant or conflict with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

Moreover, as discussed above, the proposed project would have less than significant land use impacts on an individual level, and would not make a cumulatively considerable contribution to this less than significant cumulative land use impact.

Therefore, the proposed project in conjunction with other past, present, and reasonably foreseeable probable future projects would not result in a cumulatively significant impact related to land use.

Level of Cumulative Significance

Less Than Significant

3.12 - Noise

3.12.1 - Introduction

This section describes the existing noise setting and potential effects from proposed project implementation on the site and its surrounding area. Descriptions and analysis in this section are based, in part, on noise modeling performed by FirstCarbon Solutions. The noise modeling output is included in this Draft Environmental Impact Report (Draft EIR) as Appendix I. No comments were received during the Notice of Preparation (NOP) comment period related to project-generated Noise impacts.

3.12.2 - Environmental Setting

Characteristics of Noise

Noise is generally defined as unwanted or objectionable sound. Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm or when it has adverse effects on health. The effects of noise on people can include general annoyance, interference with speech communication, sleep disturbance, and in the extreme, hearing impairment. Noise effects can be caused by pitch or loudness. *Pitch* is the number of complete vibrations or cycles per second of a wave that result in the range of tone from high to low; higher-pitched sounds are louder to humans than lower-pitched sounds. *Loudness* is the intensity or amplitude of sound.

Sound is produced by the vibration of sound pressure waves in the air. Sound pressure levels are used to measure the intensity of sound and are described in terms of decibels. The decibel (dB) is a logarithmic unit, which expresses the ratio of the sound pressure level being measured to a standard reference level. The 0 point on the dB scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Changes of less than 3 dB are only perceptible in laboratory environments. Audible increases in noise levels generally refer to a change of 3 dB or more, as this level has been found to be barely perceptible to the human ear in outdoor environments. Only audible changes in existing ambient or background noise levels may be considered potentially significant, as explained further below.

The human ear is not equally sensitive to all frequencies within the audible sound spectrum, so sound pressure level measurements can be weighted to better represent frequency-based sensitivity of average healthy human hearing. One such specific “filtering” of sound is called “A-weighting.” A-weighted decibels (dBA) approximate the subjective response of the human ear to a broad frequency noise source by discriminating against very low and very high frequencies of the audible spectrum. They are adjusted to reflect only those frequencies that are audible to the human ear. Because decibels are logarithmic units, they cannot be added or subtracted by ordinary arithmetic means. For example, if one noise source produces a noise level of 70 dB, the addition of another noise source with the same noise level would not produce 140 dB; rather, they would combine to produce a noise level of 73 dB.

Noise Descriptors

There are many ways to rate noise for various intervals, but an appropriate rating of ambient noise affecting humans also accounts for the annoying effects of sound. Equivalent continuous sound level (L_{eq}) is the total sound energy of time-varying noise over a sample period. However, the predominant

rating scales for human communities in the State of California are the L_{eq} and community noise equivalent level (CNEL) or the day-night average level (L_{dn}) based on dBA. CNEL is the time-varying noise over a 24-hour period, with a 5 dBA weighting factor applied to the hourly L_{eq} for noises occurring from 7:00 p.m. to 10:00 p.m. (defined as relaxation hours) and a 10 dBA weighting factor applied to noise occurring from 10:00 p.m. to 7:00 a.m. (defined as sleeping hours). L_{dn} is similar to the CNEL scale but without the adjustment for events occurring during the evening hours. CNEL and L_{dn} are within one dBA of each other and are normally treated as interchangeable. The noise adjustments are added to the noise events occurring during the more sensitive hours.

Other noise rating scales of importance when assessing the annoyance factor include the maximum noise level (L_{max}), which is the highest exponential time-averaged sound level that occurs during a stated time period. The noise environments discussed in this analysis are specified in terms of maximum levels denoted by L_{max} for short-term noise impacts. L_{max} reflects peak operating conditions and addresses the annoying aspects of intermittent noise.

Noise Propagation

From the noise source to the receiver, noise changes both in level and frequency spectrum. The most obvious is the decrease in noise as the distance from the source increases. The manner in which noise reduces with distance depends on whether the source is a point or line source, as well as ground absorption, atmospheric conditions (wind, temperature gradients, and humidity) and refraction, and shielding by natural and manmade features. Sound from point sources, such as an air conditioning condenser, a piece of construction equipment, or an idling truck, radiates uniformly outward as it travels away from the source in a spherical pattern.

The attenuation or sound drop-off rate is dependent on the conditions of the land between the noise source and receiver. To account for this ground-effect attenuation (absorption), two types of site conditions are commonly used in noise models: soft-site and hard-site conditions. Soft-site conditions account for the sound propagation loss over natural surfaces such as normal earth and ground vegetation. For point sources, a drop-off rate of 7.5 dBA per each doubling of the distance (dBA/DD) is typically observed over soft ground with landscaping, as compared with a 6 dBA/DD drop-off rate over hard ground such as asphalt, concrete, stone, and very hard packed earth. For line sources, such as traffic noise on a roadway, a 4.5 dBA/DD is typically observed for soft-site conditions compared to the 3 dBA/DD drop-off rate for hard-site conditions. Table 3.12-1 briefly defines these measurement descriptors and other sound terminology used in this section.

Table 3.12-1: Sound Terminology

Term	Definition
Sound	A vibratory disturbance created by a vibrating object which, when transmitted by pressure waves through a medium such as air, can be detected by a receiving mechanism such as the human ear or a microphone.
Noise	Sound that is loud, unpleasant, unexpected, or otherwise undesirable.

Term	Definition
Ambient Noise	The composite of noise from all sources near and far in a given environment.
Decibel (dB)	A unitless measure of sound on a logarithmic scale, which represents the squared ratio of sound pressure amplitude to a reference sound pressure. The reference pressure is 20 micropascals, representing the threshold of human hearing (0 dB).
A-Weighted Decibel (dBA)	An overall frequency-weighted sound level that approximates the frequency response of the human ear.
Equivalent Noise Level (L_{eq})	The average sound energy occurring over a specified time period. In effect, L_{eq} is the steady-state sound level that in a stated period would contain the same acoustical energy as the time-varying sound that actually occurs during the same period.
Maximum and Minimum Noise Levels (L_{max} and L_{min})	The maximum or minimum instantaneous sound level measured during a measurement period.
Day-Night Level (DNL or L_{dn})	The energy average of the A-weighted sound levels occurring during a 24-hour period, with 10 dB added to the A-weighted sound levels occurring between 10:00 p.m. and 7:00 a.m. (nighttime).
Community Noise Equivalent Level (CNEL)	The energy average of the A-weighted sound levels occurring during a 24-hour period, with 5 dB added to the A-weighted sound levels occurring between 7:00 p.m. and 10:00 p.m. and 10 dB added to the A-weighted sound levels occurring between 10:00 p.m. and 7:00 a.m.
Source: Data compiled by FirstCarbon Solutions (FCS) 2021.	

Traffic Noise

The level of traffic noise depends on the three primary factors: (1) the volume of the traffic, (2) the speed of the traffic, and (3) the number of trucks in the flow of traffic. Generally, the loudness of traffic noise is increased by heavier traffic volumes, higher speeds, and greater number of trucks. Vehicle noise is a combination of the noise produced by the engine, exhaust, and tires. Because of the logarithmic nature of noise levels, a doubling of the traffic volume (assuming that the speed and truck mix do not change) results in a noise level increase of 3 dBA. Based on the Federal Highway Administration (FHWA) community noise assessment criteria, this change is "barely perceptible." For reference, a doubling of perceived noise levels would require an increase of approximately 10 dBA. The truck mix on a given roadway also has an effect on community noise levels. As the number of heavy trucks increases and becomes a larger percentage of the vehicle mix, adjacent noise levels increase.

Stationary Noise

A stationary noise producer is any entity in a fixed location that emits noise. Examples of stationary noise sources include machinery, engines, energy production, and other mechanical or powered equipment

and activities such as loading and unloading or public assembly that may occur at commercial, industrial, manufacturing, or institutional facilities. Furthermore, while noise generated by the use of motor vehicles over public roads is preempted from local regulation, although the use of these vehicles is considered a stationary noise source when operated on private property such as at a construction site, a truck terminal, or warehousing facility. The emitted noise from the producer can be mitigated to acceptable levels either at the source or on the adjacent property through, for example, the use of proper circulation and site planning, setbacks, block walls, acoustic-rated windows, dense landscaping, or by changing the location of the noise producer.

The effects of stationary noise depend on factors such as characteristics of the equipment and operations, distance and pathway between the generator and receptor, and weather. Stationary noise sources may be regulated, for example, at the point of manufacture (e.g., equipment or engines), with limitations on the hours of operation, or with provision of intervening structures, barriers or topography.

Construction activities are a common source of temporary stationary noise. Construction-period noise levels are higher than background ambient noise levels but ultimately cease once construction is complete. Construction is performed in discrete steps, each of which has its own mix of equipment and, consequently, its own noise characteristics. These various sequential or concurrent phases would change the character of the noise generated on each construction site and, therefore, would change the noise levels as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase. Table 3.12-2 shows typical noise levels of construction equipment as measured at a distance of 50 feet from the operating equipment.

Table 3.12-2: Typical Construction Equipment Maximum Noise Levels, L_{max}

Type of Equipment	Specification Maximum Sound Levels for Analysis (dBA at 50 feet)
Impact Pile Driver	95
Auger Drill Rig	85
Vibratory Pile Driver	95
Jackhammers	85
Pneumatic Tools	85
Pumps	77
Scrapers	85
Cranes	85
Portable Generators	82
Rollers	85
Dozers	85
Tractors	84
Front-End Loaders	80
Backhoe	80

Type of Equipment	Specification Maximum Sound Levels for Analysis (dBA at 50 feet)
Excavators	85
Graders	85
Air Compressors	80
Dump Truck	84
Concrete Mixer Truck	85
Pickup Truck	55

Notes:
dBA = A-weighted decibel
Source: Federal Highway Administration (FHWA) 2006. Highway Construction Noise Handbook, August.

Noise from Multiple Sources

Because sound pressure levels in decibels are based on a logarithmic scale, they cannot be added or subtracted in the usual arithmetical way. Therefore, sound pressure levels in decibels are logarithmically added on an energy summation basis. In other words, adding a new noise source to an existing noise source, both producing noise at the same level, will not double the noise level. Instead, if the difference between two noise sources is 10 dBA or more, the louder noise source will dominate, and the resultant noise level will be equal to the noise level of the louder source. In general, if the difference between two noise sources is 0–1 dBA, the resultant noise level will be 3 dBA higher than the louder noise source, or both sources if they are equal. If the difference between two noise sources is 2–3 dBA, the resultant noise level will be 2 dBA above the louder noise source. If the difference between two noise sources is 4–10 dBA, the resultant noise level will be 1 dBA higher than the louder noise source.

Characteristics of Vibration

Groundborne vibration consists of rapidly fluctuating motion through a solid medium, specifically the ground, that has an average motion of zero and in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. The effects of groundborne vibration typically only causes a nuisance to people, but in extreme cases, excessive groundborne vibration has the potential to cause structural damage to buildings. Although groundborne vibration can be felt outdoors, it is typically only an annoyance to people indoors where the associated effects of the shaking of a building can be notable. Groundborne noise is an effect of groundborne vibration and only exists indoors, since it is produced from noise radiated from the motion of the walls and floors of a room, and may also consist of the rattling of windows or dishes on shelves.

Several different methods are used to quantify vibration amplitude such as the maximum instantaneous peak in the vibrations velocity, which is known as the peak particle velocity (PPV) or the root mean square (rms) amplitude of the vibration velocity. Because of the typically small amplitudes of vibrations, vibration velocity is often expressed in decibels—denoted as LV—and is based on the reference quantity of 1 micro inch per second. To distinguish these vibration levels referenced in decibels from noise levels referenced in decibels, the unit is written as "VdB."

As noted above, although groundborne vibration can be felt outdoors, it is typically only an annoyance to people indoors where the associated effects of the shaking of a building can be notable. When assessing annoyance from groundborne vibration, vibration is typically expressed as rms velocity in units of decibels of 1 micro inch per second, with the unit written in VdB. Typically, developed areas are continuously affected by vibration velocities of 50 VdB or lower. Human perception to vibration starts at levels as low as 67 VdB. Annoyance due to vibration in residential settings starts at approximately 70 VdB.

Off-site sources that may produce perceptible vibrations are usually caused by construction equipment, steel-wheeled trains, and traffic on rough roads, while smooth roads rarely produce perceptible groundborne noise or vibration. Construction activities, such as blasting, pile driving and operating heavy earthmoving equipment, are common sources of groundborne vibration. Construction vibration impacts on building structures are generally assessed in terms of PPV. Typical vibration source levels from construction equipment are shown in Table 3.12-3.[1]

Table 3.12-3: Vibration Levels of Construction Equipment

Construction Equipment	PPV at 25 Feet (inches/second)	rms Velocity in Decibels (VdB) at 25 Feet
Water Trucks	0.001	57
Scraper	0.002	58
Bulldozer—small	0.003	58
Jackhammer	0.035	79
Concrete Mixer	0.046	81
Concrete Pump	0.046	81
Paver	0.046	81
Pickup Truck	0.046	81
Auger Drill Rig	0.051	82
Backhoe	0.051	82
Crane (Mobile)	0.051	82
Excavator	0.051	82
Grader	0.051	82
Loader	0.051	82
Loaded Trucks	0.076	86
Bulldozer—Large	0.089	87
Caisson drilling	0.089	87
Vibratory Roller (small)	0.101	88
Compactor	0.138	90
Clam shovel drop	0.202	94

[1] Federal Highway Administration (FHWA). 2006. Highway Construction Noise Handbook. August.

Construction Equipment	PPV at 25 Feet (inches/second)	rms Velocity in Decibels (VdB) at 25 Feet
Vibratory Roller (large)	0.210	94
Pile Driver (impact-typical)	0.644	104
Pile Driver (impact-upper range)	1.518	112

Notes:
PPV = peak particle velocity
rms = root mean square
VdB = velocity in decibels
Source: Compilation of scientific and academic literature, generated by Federal Transit Administration (FTA) and Federal Highway Administration (FHWA).

The propagation of groundborne vibration is not as simple to model as airborne noise. This is because noise in the air travels through a relatively uniform medium, while groundborne vibrations travel through the earth, which may contain significant geological differences. Factors that influence groundborne vibration include:

- **Vibration source:** Type of activity or equipment, such as impact or mobile, and depth of vibration source;
- **Vibration path:** Soil type, rock layers, soil layering, depth to water table, and frost depth; and
- **Vibration receiver:** Foundation type, building construction, and acoustical absorption.

Among these factors that influence groundborne vibration, there are significant differences in the vibration characteristics when the source is underground compared to at the ground surface. In addition, soil conditions are known to have a strong influence on the levels of groundborne vibration. Among the most important factors are the stiffness and internal damping of the soil and the depth to bedrock. Vibration propagation is more efficient in stiff clay soils than in loose sandy soils, and shallow rock seems to concentrate the vibration energy close to the surface, and can result in groundborne vibration problems at large distances from the source. Factors such as layering of the soil and depth to the water table can have significant effects on the propagation of groundborne vibration. Soft, loose, sandy soils tend to attenuate more vibration energy than hard, rocky materials. Vibration propagation through groundwater is more efficient than through sandy soils. There are three main types of vibration propagation: surface, compression, and shear waves. Surface waves, or Rayleigh waves, travel along the ground's surface. These waves carry most of their energy along an expanding circular wave front, similar to ripples produced by throwing a rock into a pool of water. P-waves, or compression waves, are body waves that carry their energy along an expanding spherical wave front. The particle motion in these waves is longitudinal (i.e., in a "push-pull" fashion). P-waves are analogous to airborne sound waves. S-waves, or shear waves, are also body waves that carry energy along an expanding spherical wave front. However, unlike P-waves, the particle motion is transverse, or side-to-side and perpendicular to the direction of propagation.

As vibration waves propagate from a source, the vibration energy decreases in a logarithmic nature and the vibration levels typically decrease by 6 VdB per doubling of the distance from the vibration source. As

stated above, this drop-off rate can vary greatly depending on the soil type, but it has been shown to be effective enough for screening purposes, in order to identify potential vibration impacts that may need to be studied through actual field tests. The vibration level (calculated below as "PPV") at a distance from a point source can generally be calculated using the vibration reference equation:

$$PPV = PPV_{ref} * (25/D)^n \text{ (in/sec)}$$

Where:

PPV_{ref} = reference measurement at 25 feet from vibration source
D = distance from equipment to the receptor
n = vibration attenuation rate through ground

According to Section 7 of the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual, an "n" value of 1.5 is recommended to calculate vibration propagation through typical soil conditions.[2]

Existing Noise Levels

Traffic Noise

Background traffic noise levels on local roadways in the vicinity of the project site were calculated based on the background intersection turning volume data provided in the traffic study prepared by Kimley-Horn.[3] Traffic noise levels were modeled using the FHWA Traffic Noise Prediction Model (FHWA-RD-77-108), with the addition of site-specific information such as roadway traffic volumes, roadway active width, source-to-receiver distances, travel speed, noise source and receiver heights, and the percentages of automobiles, medium trucks, and heavy trucks that the traffic is made up of throughout the day, among other variables. The modeled average daily traffic (ADT) volumes were obtained by multiplying the PM peak-hour intersection traffic volumes from the traffic study prepared for the proposed project by a factor of 10. The model inputs and outputs, including the 60 dBA, 65 dBA, and 70 dBA L_{dn} traffic noise contour distances, are provided in Appendix I. A summary of the modeling results is shown in Table 3.12-4.

Table 3.12-4: Background Traffic Noise Levels

Roadway Segment	ADT	Centerline to 70 L_{dn} (feet)	Centerline to 65 L_{dn} (feet)	Centerline to 60 L_{dn} (feet)	L_{dn} (dBA) 50 feet from Centerline of Outermost Lane
MacArthur Drive–EB I-580 off-ramps to Pescadero Avenue	20,900	137	291	625	74.3
MacArthur Drive–Pescadero Avenue to Grant Line Road	20,300	134	286	613	74.1
MacArthur Drive–Grant Line Road to Eleventh Street	9,400	85	177	378	71.0

[2] Federal Transit Administration (FTA). 2018. Transit Noise and Vibration Impact Assessment Manual. September.
[3] Kimley-Horn, 2020. Tracy Alliance and North East Annexation Area TIA. August.

Roadway Segment	ADT	Centerline to 70 L_{dn} (feet)	Centerline to 65 L_{dn} (feet)	Centerline to 60 L_{dn} (feet)	L_{dn} (dBA) 50 feet from Centerline of Outermost Lane
Grant Line Road–MacArthur Drive to Chrisman Road	19,800	152	322	692	74.5
Grant Line Road–Chrisman Road to Paradise Avenue	11,900	110	230	493	72.3
Grant Line Road–Paradise Road to Chabot Circle	19,400	149	318	683	74.8
Grant Line Road–Chabot Circle to Best Buy Driveway	19,500	149	319	685	74.9
Grant Line Road–Best Buy Driveway to Banta Road	19,300	148	317	680	74.8
Paradise Avenue–Grant Line Road to Project Driveway 3	2,600	< 50	73	156	66.1
Paradise Avenue–Project Driveway 3 to Project Driveway 4	2,000	< 50	62	131	65.0
Paradise Avenue–Project Driveway 4 to Project Driveway 5	1,400	< 50	< 50	104	63.4
Paradise Avenue–north of Project Driveway 5	1,400	< 50	< 50	104	63.4
Chrisman Road–Eleventh Street to Grant Line Road	3,100	< 50	82	176	66.9

Note:
ADT = Average Daily Traffic
dBA = A-weighted decibel
L_{dn} = day/night average sound level
Modeling results do not take into account mitigating features such as topography, vegetative screening, fencing, building design, or structure screening. Rather it assumes a worst-case of having a direct line of site on flat terrain.
Source: FirstCarbon Solutions (FCS) 2021.

Existing Stationary Noise Levels On-site and in Surrounding Area

The project site is currently used for row crop production and there is also one single-family residence that is occupied; therefore existing stationary noise levels on-site are the typical levels of noise generated by agricultural operations and the existing residence.

The project site is roughly bordered to the north by Interstate 205 (I-205) and agricultural lands, including dairy operations; to the east by the unincorporated community of Banta and other residential and industrial uses; to the south by open space; and to the west by open space and agricultural lands . The various land uses in the project vicinity are all point sources of noise that affect the existing noise environment through the generation of noise from, among other things, agricultural operations, truck loading and unloading operations, and landscaping and maintenance equipment activities.

Noise-Sensitive Land Uses

Noise-sensitive land uses generally consist of those uses for which quiet is an essential element of their intended purpose, as well as uses where exposure to noise would result in adverse effects. 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 typical noise-sensitive land uses include hospitals, convalescent facilities, hotels, religious institutions, libraries, and other uses where low noise levels are essential.

On the project site, there is one occupied single-family residence, located in the southwest corner of the project site, which would be demolished with implementation of the project. The closest noise-sensitive land uses adjacent to the project site are a single-family residence located approximately 45 feet east of the project site's southeast boundary, a single-family residence located approximately 80 feet north of the project site's northern boundary, and a single-family residence located approximately 100 feet west of the project site's southwest boundary.

3.12.3 - Regulatory Framework

Federal

Noise Control Act

The adverse impact of noise was officially recognized by the federal government in the Noise Control Act of 1972, which serves three purposes:

- Promulgating noise emission standards for interstate commerce
- Assisting state and local abatement efforts
- Promoting noise education and research

The Federal Office of Noise Abatement and Control (ONAC) was initially tasked with implementing the Noise Control Act. However, the ONAC has since been eliminated, leaving the development of federal noise policies and programs to other federal agencies and interagency committees.

Among the agencies now regulating noise are the Occupational Safety and Health Administration (OSHA), which limits noise exposure of workers to 90 dB L_{eq} or less for 8 continuous hours or 105 dB L_{eq} or less for 1 continuous hour; the United States Department of Transportation (USDOT), which assumed a significant role in noise control through its various operating agencies; and the Federal Aviation Administration (FAA), which regulates noise of aircraft and airports. Surface transportation system noise is regulated by a host of agencies, including the FTA. Transit noise is regulated by the federal Urban Mass Transit Administration, while freeways that are part of the interstate highway system are regulated by the FHWA.

Since the federal government has preempted the setting of standards for noise levels that can be emitted by transportation sources, local jurisdictions are limited to regulating the noise generated by the transportation system through nuisance abatement ordinances and land use planning.

Federal Transit Administration Standards and Guidelines

FTA has established industry accepted standards and guidelines for vibration impact criteria and impact assessment. These standards and guidelines are published in its Transit Noise and Vibration Impact

Assessment document.[4] The FTA guidance includes recommended thresholds for construction vibration impacts for various structural categories as shown in Table 3.12-5.

Table 3.12-5: Federal Transit Administration Construction Vibration Impact Criteria

Building Category	PPV (in/sec)	Approximate VdB
I. Reinforced-Concrete, Steel or Timber (no plaster)	0.5	102
II. Engineered Concrete and Masonry (no plaster)	0.3	98
III. Non-engineered Timber and Masonry Buildings	0.2	94
IV. Buildings Extremely Susceptible to Vibration Damage	0.12	90

Notes:
PPV = peak particle velocity
VdB = velocity in decibels
Source: Federal Transit Administration (FTA) 2018. Transit Noise and Vibration Impact Assessment Manual. September.

State

California General Plan Guidelines

Established in 1973, the California Department of Health Services Office of Noise Control was instrumental in developing regularity tools to control and abate noise for use by local agencies. One significant model is the "Land Use Compatibility for Community Noise Environments Matrix," which allows the local jurisdiction to delineate compatibility of sensitive uses with various incremental levels of noise.[5]

Government Code Section 65302 mandates that the legislative body of each county and city in California adopt a noise element as part of its comprehensive general plan. The local noise element must recognize the land use compatibility guidelines published by the State Department of Health Services. These guidelines rank noise/land use compatibility in terms of normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable. Consistent with the foregoing, the City of Tracy has established land use compatibility guidelines for determining acceptable noise levels for specified land uses, as described below.

California Environmental Quality Act

The proposed project is also subject to review under the State of California Environmental Quality Act (CEQA). Appendix G of the CEQA Guidelines provides impact thresholds for potential noise and vibration impacts, which are discussed in more detail below.

California Building Standards Code

The State of California has established regulations that help prevent adverse impacts to occupants of buildings located near noise sources. Referred to as the "State Noise Insulation Standard," it requires

[4] Federal Transit Administration (FTA). 2018. Transit Noise and Vibration Impact Assessment Manual. September.
[5] California Department of Health Services Office of Noise Control. 1976. "Land Use Compatibility for Community Noise Environments Matrix."

buildings to meet performance standards through design and/or building materials that would offset any noise source in the vicinity of the receptor. State regulations include requirements for the construction of new hotels, motels, apartment houses, and dwellings other than detached single-family dwellings that are intended to limit the extent of noise transmitted into habitable spaces. These requirements are found in the California Code of Regulations, Title 24 (known as the Building Standards Administrative Code), Part 2 (known as the California Building Code), Appendix Chapters 12 and 12A.

The proposed project does not include any residential development. Therefore, these standards are not applicable to the proposed project; however, the City of Tracy has established land use compatibility guidelines for determining acceptable noise levels for specified land uses, as described below.

Local

The project site is located within unincorporated area of San Joaquin County, within the City's existing Sphere of Influence (SOI), and requires annexation into the City of Tracy. The City of Tracy addresses noise in the Noise Element of the General Plan[6] and in the Municipal Code.[7]

City of Tracy General Plan

The Noise Element establishes standards to help address noise land use compatibility issues for new development or redevelopment projects and to help limit excessive noise exposure of existing developments. Relevant goals, policies, actions, and standards provided in the Noise Element are considered to provide the basis for decision-makers in determining land use compatibility issues with noise sources associated with proposed developments and redevelopments (including the proposed project) from a planning perspective, and also are considered in connection with CEQA review in determining whether there is a significant impact as well as any necessary mitigation requirements.

Exhibit 3.12-1 shows a summary of different land uses in the City and their associated acceptable and unacceptable noise levels for new developments and redevelopments, as originally presented in Figure 9-3 of the Noise Element. The land use category from this exhibit that would be the most applicable to the proposed project is that of "office buildings, business commercial, and professional" land use because some of the proposed land uses would include office uses. The land use category from this exhibit does not include industrial use, and also, analyzing for compatibility of offices use would provide a more conservative analysis since office is a more sensitive use than industrial use. Accordingly, for purposes of this analysis, the "office buildings, business commercial, and professional" category is utilized. The land use compatibility standards state that environments with ambient noise levels ranging up to 70 dBA L_{dn} are considered "normally acceptable" for new office buildings, business commercial, and professional land use development; environments with ambient noise levels ranging up to 80 dBA L_{dn} are considered "conditionally acceptable" for new office buildings, business commercial, and professional land use development, and new construction should only be undertaken after a detailed

[6] City of Tracy. 2011. City of Tracy General Plan. February 1. Website: https://www.ci.tracy.ca.us/documents/2011_General_Plan.pdf. Accessed April 9, 2020.

[7] City of Tracy. 2019. City of Tracy Municipal Code. December 16. Website: https://library.municode.com/ca/tracy/codes/code_of_ordinances?nodeId=TIT4PUWEMOCO_CH4.12MIRE_ART9NOCO. Accessed April 9, 2020.

analysis of noise reduction requirements are made and needed noise insulation features are included in the design.

The City of Tracy General Plan includes the following goals and policies that address noise and are relevant to this analysis to the proposed project:

Chapter 9, Noise Element

Objective N-1.1: Ensure appropriate exterior and interior noise levels for new land uses.

Policies

Policy P8 Measures to attenuate exterior and/or interior noise levels to acceptable levels shall be incorporated into all development projects. Acceptable, conditionally acceptable and unacceptable noise levels are presented in Figure 9-3 of the Noise Element.

Objective N-1.2: Control sources of excessive noise.

Policies

Policy P1 The City's Noise Ordinance, as revised from time to time, shall prohibit the generation of excessive noise.

Policy P2 Mitigation measures shall be required for new development projects that exceed the following criteria:

- Cause the L_{dn} at noise-sensitive uses to increase by 3 dB or more and exceed the "normally acceptable" level.
- Cause the L_{dn} at noise-sensitive uses to increase 5 dB or more and remain "normally acceptable."
- Cause new noise levels to exceed the City of Tracy Noise Ordinance limits.

Policy P4 All construction in the vicinity of noise-sensitive land uses, such as residences, hospitals, or convalescent homes, shall be limited to daylight hours or 7:00 a.m. to 7:00 p.m. In addition, the following construction noise control measures shall be included as requirements at construction sites to minimize construction noise impacts:

- Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.
- Locate stationary noise-generating construction equipment as far as possible from sensitive receptors when sensitive receptors adjoin or are near a construction area.
- Utilize "quiet" air compressors and other construction-related stationary noise sources where such technology exists.

Objective N-1.3: Consider noise issues in the Development Review process.

Policies

Policy P1 Development projects shall be evaluated for potential noise impacts and conflicts as part of the Development Review process.

Policy P2 Significant noise impacts shall be mitigated as a condition of project approval.

Policy P3 New development projects shall have an acoustical specialist prepare a noise analysis with recommendations for design mitigation if a noise-producing project is proposed near existing or planned noise-sensitive uses.

Tracy Municipal Code

Title 4, Chapter 12, Article 9 of the Tracy Municipal Code also contains guidance with the intent to control noise and vibration to promote and maintain the health, safety, and welfare of its residents. The Municipal Code generally prohibits certain activities that have the potential to result in loud, excessive, or unreasonable noise levels. According to section 4.12.750, the general sound level limits for industrial districts during operation are as follows: no person shall cause or allow the creation of any noise to the extent that the one-hour average sound level, at any point on or beyond the boundaries of the property on which the sound is produced to exceed 75 dBA $L_{eq(h)}$.

The noise ordinance section 4.12.820 prohibits the operation of any pneumatic or air hammer, pile driver, steam shovel, derrick, steam, or electric hoist, parking lot cleaning equipment or other appliance, the use of which is attended by loud our unusual noise between the hours of 10:00 p.m. and 7 :00 a.m. Section 4.12.830 requires that all equipment and machinery powered by internal combustion engines shall be equipped with a proper muffler and air intake silencer in good working order.

3.12.4 - Impacts and Mitigation Measures

Significance Criteria

The City has decided, in its discretion, to utilize Appendix G of the State CEQA Guidelines as thresholds of significance for this project. According to Appendix G, Environmental Checklist, of the CEQA Guidelines, noise impacts resulting from the implementation of the proposed project would be considered significant if the project would:

a) Cause a significant environmental impact relating to noise due to a conflict with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?[8]

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

c) Generate excessive groundborne vibration or groundborne noise levels?

[8] This significance criteria question is from the Land Use and Planning section of the CEQA Guidelines Appendix G checklist questions. However, since the question addresses impacts related to conflicts with land use plans, which would include project-related conflicts related to noise land use compatibility standards of the General Plan Noise Element, it is also included here.

d) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels?

Approach to Analysis

Traffic Noise Modeling Methodology

As noted above, the level of traffic noise depends on the three primary factors: (1) the volume of the traffic, (2) the speed of the traffic, and (3) the number of trucks in the flow of traffic. Generally, the loudness of traffic noise is increased by heavier traffic volumes, higher speeds, and greater number of trucks. Vehicle noise is a combination of the noise produced by the engine, exhaust, and tires. Because of the logarithmic nature of traffic noise levels, a doubling of the traffic volume (assuming that the speed and truck mix do not change) results in a noise level increase of 3 dBA. Based on the FHWA community noise assessment criteria, this change is "barely perceptible." Changes of less than 3 dB or less are only perceptible in laboratory environments. Noise level increases of 5 dB or more are considered to be "readily perceptible" to the human ear in outdoor environments. For reference, a doubling of perceived noise levels would require an increase of approximately 10 dBA. The truck mix on a given roadway also has an effect on community noise levels. As the number of heavy trucks increases and becomes a larger percentage of the vehicle mix, adjacent noise levels increase.

The FHWA highway traffic noise prediction model (FHWA-RD-77-108) was used to evaluate traffic-related noise conditions in the project vicinity. Traffic data used in the model were obtained from the Transportation Impact Analysis (TIA) prepared for the proposed project by Kimley-Horn. The resulting noise levels were weighed and summed over a 24-hour period in order to determine the CNEL values. The FHWA-RD-77-108 Model arrived at a predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level. Adjustments were then made to this level to account for the roadway active width (i.e., the distance between the center of the outermost travel lanes on each side of the roadway); the total ADT; the percentage of ADT that flows during the day, evening, and night; the travel speed; the vehicle mix on the roadway; a percentage of the volume of automobiles, medium trucks, and heavy trucks; the roadway grade; the angle of view of the observer exposed to the roadway; and the site conditions ("hard" or "soft") as they relate to the absorption of the ground, pavement, or landscaping.

The model analyzed the mobile source noise impacts from the nearby roadways on the project vicinity, which consists of the area that has the potential to be impacted by the on-site noise sources, as well as project-generated traffic on the nearby roadways. Analyses of the roadways were based on a single-lane-equivalent noise source combining both directions of travel. A single-lane-equivalent noise source occurs when the vehicular traffic from all lanes is combined into a theoretical single-lane that has a width equal to the distance between the two outside lanes of a roadway, which provides almost identical results to analyzing each lane separately where elevation changes are minimal.

Vibration Methodology

The City of Tracy does not have adopted criteria for construction groundborne vibration impacts. Therefore, the FTA's vibration impact criteria is utilized to evaluate potential vibration impacts resulting

from construction activities. The FTA has established standards for vibration impact criteria and impact assessment. These guidelines are published in FTA's Transit Noise and Vibration Impact Assessment document,[9] and are summarized in Table 3.12-3, in the regulatory discussion above.

Thresholds Utilized for Analysis

Thresholds Utilized for Noise Land Use Compatibility

For purposes of this analysis, the following criteria are used to evaluate the potential impacts of the proposed project as it relates to noise land use compatibility.

- A significant impact would occur if the proposed project would conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. The land use compatibility standards state that environments with ambient noise levels ranging up to 70 dBA L_{dn} are considered "normally acceptable" for new office buildings, business commercial, and professional land use development; and environments with ambient noise levels ranging up to 80 dBA L_{dn} are considered "conditionally acceptable" for these types of land use developments.

Thresholds Utilized for Temporary and Permanent Noise Increase Impacts

For purposes of this analysis, the following criteria are used to evaluate the significance of noise and vibration resulting from implementation of the proposed project.

- A significant impact would occur if the proposed project would generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies, as follows:
  - For temporary construction noise, a significant impact would occur if construction activities would result in a substantial temporary increase in ambient noise levels outside of the City's standard permissible hours for construction (daylight hours or 7:00 a.m. to 7:00 p.m.) that would result in annoyance or sleep disturbance of nearby sensitive receptors.[10]
  - For project-related traffic noise, a significant impact would occur if the proposed project would cause the L_{dn} to increase by 5 dBA or more and remain below "normally acceptable" levels for a receiving land use (as defined in the land use compatibility standards); or by 3 dBA or more, thereby causing the L_{dn} in the project vicinity to exceed normally acceptable levels and result in noise levels that would be considered "conditionally acceptable" (as defined in the land use compatibility standards) for a receiving land use.
  - For project-related stationary operational noise sources, a significant impact would occur if the proposed project would cause the L_{dn} at noise-sensitive uses to increase by 3 dB or more and exceed the "normally acceptable" level, or cause the L_{dn} at noise-sensitive uses to increase 5 dB or more and remain "normally acceptable," or

[9] Federal Transit Administration (FTA). 2018. Transit Noise and Vibration Impact Assessment Manual. September.

[10] While this threshold is broader than the construction noise restrictions set forth in the City's Municipal Code, the City, in its discretion, utilizes this threshold with respect to temporary noise increases to ensure a conservative analysis.

- For project-related stationary operational noise sources, a significant impact would also occur if the proposed project would cause new noise levels to exceed the City of Tracy Noise Ordinance limits of 75 dBA for any 1-hour average period at any point on or beyond the project boundary.

Thresholds Utilized for Construction and Operational Vibrational Impacts

For purposes of this analysis, the following criteria are used to evaluate the significance of groundborne vibration resulting from implementation of the proposed project. It should be noted that, if groundborne vibration levels do not exceed levels considered to be perceptible, then groundborne noise levels would not be perceptible in most interior environments. Therefore, this analysis focuses on determining exceedances of groundborne vibration levels.

- A significant impact would occur if the proposed project would generate groundborne vibration levels in excess of applicable standards. The City of Tracy has not adopted criteria for construction groundborne vibration impacts or for operational groundborne vibration impacts that would be applicable to this project.
  - Therefore, for purposes of this analysis, the FTA's construction vibration impact criteria are utilized. The FTA threshold of 0.2 in/sec PPV is the potential damage criteria threshold for buildings of non-engineered timber and masonry construction.
  - For operational impacts, a significant impact will occur if project ongoing activities would produce groundborne vibrations that are perceptible without instruments by a reasonable person at the property lines of the site.

Thresholds Utilized for Airport Noise Impacts

- For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, a significant impact would occur if the proposed project would expose people working in the project area to excessive noise levels.

3.12.5 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the project and provides feasible mitigation measures where appropriate.

Impact Evaluation

Noise Levels That Would Conflict with Any Land Use Plan, Policy, or Regulation

Impact NOI-1:	**The proposed project would not 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.**

A significant impact would occur if the proposed project would conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. As explained in more detail above, the City has determined, in its discretion, that the most appropriate land use category for this project is that of "office buildings, business commercial, and professional" land use, which results in

a conservative analysis. For new office buildings, business commercial, and professional land use development, environments with ambient noise levels ranging up to 70 dBA L_{dn} are considered "normally acceptable"; environments with ambient noise levels ranging up to 80 dBA L_{dn} are considered "conditionally acceptable" for these types of land use developments.

For purposes of determining the existing ambient noise levels, traffic noise is the primary noise source affecting the project site.

As shown in the Existing Noise Levels discussion above, background traffic noise levels on local roadways in the project vicinity were calculated based on the intersection turning volume data provided in the traffic study prepare by Kimley-Horn for the project.[11] Traffic noise levels were modeled using the FHWA Traffic Noise Prediction Model (FHWA-RD-77-108). The traffic noise modeling input and output files are included in Appendix I.

As is shown in Table 3.12-4 above, background traffic noise levels in the project vicinity range from approximately 63 dBA to 75 dBA L_{dn} along modeled roadway segments adjacent to the project site as measured at 50 feet from the centerline of the outermost lane. The nearest proposed façade to Grant Line Road would be set back a minimum of 150 feet from the centerline of the outermost travel lane. At this distance, traffic noise levels would attenuate to below 69 dBA L_{dn}

These noise levels are within the City's "normally acceptable" noise land use compatibility range for the relevant type of new industrial land use development. Therefore, implementation of the proposed project would not expose proposed land uses to background traffic noise levels that would conflict with the City's noise land use compatibility standards, and this impact would be less than significant.

Level of Significance

Less than significant impact.

Substantial Noise Increase in Excess of Standards

Impact NOI-2:	**The proposed project could generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.**

Construction

For purposes of this analysis, a significant impact would occur if construction activities would result in a substantial temporary increase in ambient noise levels outside of the permissible hours for construction (7:00 a.m. to 7:00 p.m.) that would result in annoyance or sleep disturbance of nearby sensitive receptors.

In general, noise impacts from construction activities associated with development of the proposed project would be a function of the noise generated by construction traffic, construction equipment,

[11] Kimley-Horn, 2020. Tracy Alliance and North East Annexation Area TIA. August.

equipment location, sensitivity and location of nearby land uses, and the timing and duration of the construction activities.

Here, as noted above, a significant impact would occur if construction activities would result in a substantial temporary increase in ambient noise levels outside of the permissible hours. Pursuant to applicable City Code requirements as reflected in standard conditions of approval, all project construction would be required to take place within the permissible hours. Accordingly, no significant impact related to construction noise would occur. A discussion of the potential impacts associated with each of these types of activities is provided below for informational purposes.

Construction-related Traffic Noise

During project construction (in which each of the three construction phases are conservatively assumed could occur simultaneously over the same 12-month period), the proposed project would be required to adhere to the above-referenced construction hours and therefore no significant impact would occur.

For informational purposes, the following is noted. Construction noise could result from the increase in traffic flow on local streets, associated with the transport of workers, equipment, and materials to and from the project site. The transport of workers and construction equipment and materials to the project site would incrementally increase noise levels on access roads leading to the site. Because project construction workers and construction equipment would use existing routes, noise from passing trucks would be similar to existing vehicle-generated noise on these local roadways. In addition, these trips would not result in a doubling of daily traffic volumes on any of the local roadways in the project vicinity and would thus, as explained more fully above, not result in a perceptible change in existing traffic noise levels. For this reason, intermittent noise from construction trips would be comparatively minor when averaged over a longer time period and would not be expected to result in a perceptible increase in hourly- or daily-average traffic noise levels in the project vicinity.

Construction Equipment Operational Noise

During project construction (in which each of the three construction phases are conservatively assumed could occur simultaneously over the same 12-month period), the proposed project would be required to adhere to the above-referenced construction hours and therefore no significant impact would occur.

For informational purposes, the following is noted. Construction is performed in discrete steps, each of which entails its own mix of equipment, and consequently, its own noise characteristics. These various sequential steps within each phase would change the character of the noise generated on-site. Thus, the noise levels vary as construction progresses. Despite the variety in the types and sizes of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction noise ranges to be categorized by work phase. Table 3.12-2 lists the maximum noise levels recommended for noise impact assessments for typical construction equipment based on a distance of 50 feet between the equipment and a noise receptor.

The site preparation phase, which includes excavation and grading activities, tend to generate the highest noise levels, because the noisiest construction equipment is earthmoving equipment. Earthmoving equipment includes excavating machinery and compacting equipment, such as bulldozers,

draglines, backhoes, front loaders, roller compactors, scrapers, and graders. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full power operation followed by 3 or 4 minutes at lower power settings.

Construction of the project is expected to require the use of scrapers, bulldozers, water trucks, haul trucks, and pickup trucks. The proposed foundations are expected to involve spread footings, so impact equipment such as pile drivers is not expected to be used during construction of the project. Based on the information provide in Table 3.12-2, the maximum noise level generated by each scraper is assumed to be 85 dBA L_{max} at 50 feet from this equipment. Each bulldozer would generate 85 dBA L_{max} at 50 feet. The maximum noise level generated by graders is approximately 85 dBA L_{max} at 50 feet. Each doubling of sound sources with equal strength increases the noise level by 3 dBA. Assuming that each piece of construction equipment operates at some distance from the other equipment, a reasonable worst-case combined noise level during this step in the construction process would be 90 dBA L_{max} at a distance of 50 feet from the acoustic center of a construction area. This would result in a reasonable worst-case hourly average of 86 dBA L_{eq}. The acoustic center reference is used, because construction equipment must operate at some distance from one another on a project site, and the combined noise level as measured at a point equidistant from the sources would (acoustic center) be the reasonable worst-case maximum noise level. The effect on sensitive receptors is evaluated below.

The nearest off-site noise-sensitive receptor to the proposed construction footprint is the single-family residence located west of the proposed building in the southwest corner of the project site, which would be located approximately 150 feet from the acoustic center of construction activity where multiple pieces of heavy machinery would operate. Again, the acoustic center refers to a point equidistant from multiple pieces of equipment operating simultaneously which would produce the reasonable worst-case maximum noise level. At this distance, construction noise levels at the exterior façade of this nearest residential home would be expected to range up to approximately 80 dBA L_{max}, with a reasonable worst-case hourly average of approximately 76 dBA L_{eq}, intermittently, when multiple pieces of heavy construction equipment operate simultaneously at the nearest construction footprint.

The closest receptor to the eastern portions of the project site where anticipated project development would occur is the single-family residence located southeast of the project site. This receptor would be located approximately 95 feet from the nearest potential construction footprint where multiple pieces of heavy machinery would operate simultaneously. At this distance, construction noise levels at the exterior façade of this residential home would be expected to range up to approximately 84 dBA L_{max}, with a reasonable worst-case hourly average of approximately 80 dBA L_{eq}, intermittently, when multiple pieces of heavy construction equipment operate simultaneously at the nearest construction footprint.

The closest receptor to the northern portions of the project site where future project development would occur is the single-family residence located north of the project site. This receptor would be located approximately 130 feet from the nearest potential construction footprint where multiple pieces of heavy machinery would operate simultaneously. At this distance, construction noise levels at the exterior façade of this nearest residential home would be expected to range up to approximately 82 dBA L_{max}, with a reasonable worst-case hourly average of approximately 78 dBA L_{eq}, intermittently, when

multiple pieces of heavy construction equipment operate simultaneously at the nearest construction footprint.

All of these reasonable worst-case construction noise levels would be required to occur only during permissible work hours, would be intermittent, and would be reduced as equipment moves over the project site further from sensitive receptors. For example, these reasonable worst-case construction noise levels would attenuate to below 65 dBA L_{eq} at a distance of 550 feet. Thus, although there would be single event noise exposure potential causing intermittent noise nuisance from project construction activity, the effect on longer-term (hourly or daily) ambient noise levels, as measured at nearby sensitive receptors, would be small, but could result in annoyance or sleep disturbances at nearby sensitive receptors if construction activities are not limited to daylight hours.

However, implementation of Improvement Mitigation Measure (IMM) NOI-2, requiring compliance with the City's permissible construction hours and implementation of best management noise reduction measures would further ensure that construction noise levels would not result in a substantial temporary increase in ambient noise levels that would result in a violation of the City's applicable construction hours requirements or sleep disturbance of nearby sensitive receptors.

Therefore, with implementation of IMM NOI-2, temporary construction noise impacts would be less than significant.

Operations

The proposed project would result in an increase in traffic on local roadway segments in the project vicinity. In addition, implementation of the proposed project would introduce new stationary operational noise sources to the ambient noise environment in the project vicinity, including parking lot and loading/unloading activity, and new mechanical ventilation equipment operation. The potential for a substantial increase in ambient noise levels resulting from these noise sources is analyzed below.

Traffic (Mobile Source) Noise

For project-related traffic noise, a significant impact would occur if the proposed project would cause the L_{dn} to increase by 5 dBA or more and remain below normally acceptable levels for a receiving land use (as defined in the land use compatibility standards); or by 3 dBA or more, thereby causing the L_{dn} in the project vicinity to exceed normally acceptable levels and result in noise levels that would be considered conditionally acceptable (as defined in the land use compatibility standards, above) for a receiving land use.

Table 3.12-6: shows a summary of the traffic noise levels for Background, Background Plus Project, Cumulative, and Cumulative Plus Project conditions as measured at 50 feet from the centerline of the outermost travel lane.

Table 3.12-6: Traffic Noise Increase Summary

Roadway Segment	Background (dBA) L_{dn}	Background Plus Project (dBA) L_{dn}	Increase Over Background (dBA)	Cumulative (dBA) L_{dn}	Cumulative Plus Project (dBA) L_{dn}	Increase Over Cumulative (dBA)
MacArthur Drive–EB I-580 off-ramps to Pescadero Avenue	74.3	74.6	0.3	74.1	74.1	0.0
MacArthur Drive–Pescadero Avenue to Grant Line Road	74.1	74.4	0.3	74.1	74.1	0.0
MacArthur Drive–Grant Line Road to Eleventh Street	71.0	71.5	0.5	73.2	73.2	0.0
Grant Line Road–MacArthur Drive to Chrisman Road	74.5	75.3	0.8	75.2	75.2	0.0
Grant Line Road–Chrisman Road to Paradise Avenue	72.3	73.5	1.2	73.3	73.9	0.6
Grant Line Road–Paradise Road to Chabot Circle	74.8	75.4	0.6	74.2	74.9	0.7
Grant Line Road–Chabot Circle to Best Buy Driveway	74.9	75.4	0.5	74.3	74.9	0.6
Grant Line Road–Best Buy Driveway to Banta Road	74.8	75.2	0.4	74.2	74.6	0.4
Paradise Avenue–Grant Line Road to Project Driveway 3	66.1	67.6	1.5	70.1	71.5	1.4
Paradise Avenue–Project Driveway 3 to Project Driveway 4	65.0	66.6	1.6	69.8	71.2	1.4
Paradise Avenue–Project Driveway 4 to Project Driveway 5	63.4	64.8	1.4	69.2	70.9	1.7
Paradise Avenue–north of Project Driveway 5	63.4	64.8	1.4	69.2	70.9	1.7
Chrisman Road–Eleventh Street to Grant Line Road	66.9	66.9	0.0	75.4	75.7	0.3

Notes:
dBA = A-weighted decibel
Ldn = day/night average sound level
Source: FirstCarbon Solutions (FCS) 2019.

As shown in Table 3.12-6, the highest traffic noise level increase with implementation of the proposed project would occur along Paradise Avenue, under Cumulative Plus Project conditions. Along this roadway segment, the proposed project would result in an increase in traffic noise levels of 1.7 dBA over cumulative conditions without the project. The resulting noise levels for this roadway segment would be 70.9 dBA L_{dn} as measured at 50-feet from the centerline of the outermost travel lane under cumulative plus project conditions. These noise levels would be considered "conditionally acceptable" under the

relevant land use category. Thus, the applicable significance criteria would be a 3 dBA increase. This greatest increase in traffic noise levels is well below the 3 dBA increase that would be considered a substantial permanent increase in noise levels compared with noise levels that would exist without the proposed project. Therefore, project-related traffic noise levels would not result in a substantial permanent increase in traffic noise levels in excess of applicable standards, and would represent a less than significant impact.

Stationary Operational Noise

For project-related stationary operational noise sources, a significant impact would occur if the proposed project would cause the L_{dn} at noise-sensitive uses to increase by 3 dB or more and exceed the "normally acceptable" level, or cause the L_{dn} at noise-sensitive uses to increase 5 dB or more and remain "normally acceptable," or cause new noise levels to exceed the City of Tracy Noise Ordinance limits of 75 dBA for any one-hour average period at any point on or beyond the project boundary.

Parking Lot Activities

Typical parking lot activities include people conversing, doors shutting, and vehicles idling which generate noise levels ranging from approximately 60 dBA to 70 dBA L_{max} at 50 feet. These activities are expected to occur periodically throughout the day,[12] as visitors and staff arrive and leave parking lot areas at the project site.

Assuming compliance with applicable minimum setback requirements for all parcels within the project site (which would serve as buffers from nearby sensitive receptors), the acoustic center of proposed parking areas would be more than 50-feet from project property lines that adjoin other properties. Assuming a reasonable worst-case scenario of one parking movement for every parking stall within a single hour would result in an hourly average noise level of 59 dBA L_{eq} as measured at the project boundary adjoining other properties. These noise levels are well below the City's hourly average noise level threshold of 75 dBA $L_{eq(h)}$. Therefore, proposed parking lot activity noise levels would not generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of the City's established noise performance threshold.

The nearest noise-sensitive receptor to the proposed parking areas of the western parcels is the single-family residence located west of the project site near the intersection of Grant Line Road and Paradise Avenue, which would be located approximately 180 feet from the acoustic center of the nearest parking area. At this distance, assuming a reasonable worst-case scenario of one parking movement for every parking stall ever hour of the day would result in day-night average noise level of 50 dBA L_{dn} as measured at the nearest residential façade. This is well below the City's "normally acceptable" threshold of 60 dBA L_{dn} for residential land uses. This is also below the existing traffic noise levels along roadway segments adjacent to this receptor, based on the traffic noise modeling results shown in Table 3.12-4. Therefore, parking lot noise levels would not exceed existing ambient noise levels as measured at the nearest residential receptor and would not result in a substantial permanent increase in ambient noise levels in the project vicinity above the applicable standard. Because the proposed project would not generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in

[12] This analysis conservatively takes into account the 24-hour/day, 7 day/week anticipated operational schedule.

excess of standards established in the local general plan or noise ordinance, the impact of noise produced by project-related parking lot activities to off-site sensitive receptors would be less than significant.

Mechanical Equipment Operations

At the time of preparation of this analysis, details were not available pertaining to the specific rooftop mechanical ventilation systems that would be installed for the project; therefore, a reference noise level for typical rooftop mechanical ventilation systems was used. Based on current market equipment specifications for this type of industrial use, noise levels from typical commercial-grade rooftop mechanical ventilation equipment operations can range up to approximately 60 dBA L_{eq} at a distance of 25 feet.

Assuming compliance with applicable minimum setback requirements for all parcels within the project site (which would serve as buffers from nearby sensitive receptors), proposed rooftop mechanical ventilation systems would be setback by more than 50 feet from project property lines that adjoin other properties. At this distance, hourly average noise levels from operation of these systems would attenuate to below 54 dBA L_{eq} as measured at the nearest project boundary adjoining other properties. These noise levels are well below the City's hourly average noise level threshold of 75 dBA $L_{eq(h)}$. Therefore, proposed rooftop mechanical ventilation system operational noise levels would not generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of the City's established noise performance threshold.

The nearest noise-sensitive receptor to proposed rooftop mechanical ventilation systems on the western parcels is the single-family residence located west of the project site near the intersection of Grant Line Road and Paradise Avenue, which would be located approximately 320 feet from the nearest location where rooftop mechanical ventilation systems could be installed. At this distance, hourly average noise levels from operation of proposed ventilation systems would attenuate to below 22 dBA L_{eq} as measured at the nearest residential façade. Assuming a reasonable worst-case scenario of the ventilation system operating ever hour of the day would result in day-night average noise level of 35 dBA L_{dn} as measured at the nearest residential façade. This is well below the City's "normally acceptable" threshold of 60 dBA L_{dn} for residential land uses. This is also below the existing traffic noise levels along roadway segments adjacent to this receptor, based on the traffic noise modeling results shown in Table 3.12-4 above. Therefore, noise levels from proposed mechanical ventilation equipment operations would not exceed existing ambient noise levels as measured at the nearest residential receptor and would not result in a substantial permanent increase in ambient noise levels in the project vicinity above the applicable standard. Because the proposed project would not generate a substantial temporary or permanent increase in ambient noise levels in the project vicinity in excess of applicable standards established in the local general plan or noise ordinance, the impact of noise produced by proposed mechanical ventilation equipment operations to off-site sensitive receptors would be less than significant.

Truck Loading Activities

Noise would also be generated by truck loading and unloading activities at the loading docks of the proposed industrial buildings.[13] Typical noise levels from truck loading and unloading activity can range from 70 dBA to 80 dBA L_{max} as measured at 50 feet.

Assuming compliance with applicable minimum setback requirements for all parcels within the project site (which would serve as buffers from nearby sensitive receptors), proposed truck loading areas would be setback more than 100 feet from nearest project property line adjoining other properties. Assuming a reasonable worst-case scenario of a truck loading event for every proposed truck loading dock within a single hour would result in an hourly average noise level of 67 dBA L_{eq} as measured at the project boundary adjoining other properties. These noise levels are well below the City's hourly average noise level threshold of 75 dBA $L_{eq(h)}$. Therefore, proposed truck loading activity noise levels would not generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of the City's established noise performance threshold.

The nearest noise-sensitive receptor to the proposed truck loading areas of the western parcels is the single-family residence located west of the project site near the intersection of Grant Line Road and Paradise Avenue, which would be located approximately 400 feet from the nearest truck loading areas. At this distance, assuming a reasonable worst-case scenario of a truck loading event for every truck loading dock every hour of the day would result in day-night average noise level of 60 dBA L_{dn} as measured at the nearest residential façade. Therefore, truck loading activities would not result in an increase in noise levels at the nearest sensitive receptor in excess of 5 dBA above the City's "normally acceptable" threshold of 60 dBA L_{dn} for residential land uses. This is also below the existing traffic noise levels along roadway segments adjacent to this receptor, based on the traffic noise modeling results shown in Table 3.12-4 above. Therefore, truck loading noise levels would not exceed existing ambient noise levels as measured at the nearest residential receptor and would not result in a substantial permanent increase in ambient noise levels in the project vicinity above the applicable standard. Because the proposed project would not generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, the impact of noise produced by project-related truck loading activities to off-site sensitive receptors would be less than significant.

Level of Significance Before Mitigation

Less Than Significant Impact

Improvement Mitigation Measures

IMM NOI-2 To reduce potential construction noise impacts, the following multi-part Improvement Mitigation Measure (IMM) shall be implemented for the project:

- Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.

[13] This analysis conservatively takes into account the 24-hour/day, 7 day/week anticipated operational schedule.

- Locate stationary operational noise-generating equipment as far as feasible from sensitive receptors when sensitive receptors adjoin or are near a construction area. In addition, the project contractor shall place such stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the project site to the extent feasible.
- Utilize "quiet" air compressors and other stationary operational noise sources where such technology exists and is commercially practicable.
- The construction contractor shall prohibit unnecessary idling (i.e., idling in excess of 5 minutes) of internal combustion engines.
- The construction contractor shall, to the maximum extent practicable, locate on-site equipment staging areas so as to maximize the distance between construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction.
- The construction contractor shall ensure that all construction activities that would occur within 550 feet of a residential land use property line shall be limited to daylight hours or to the hours of 7:00 a.m. and 7:00 p.m.

Groundborne Vibration/Noise Levels

Impact NOI-3: The proposed project would not result in generation of excessive groundborne vibration or groundborne noise levels.

A significant impact would occur if the proposed project would generate groundborne vibration or groundborne noise levels in excess of applicable standards. The City of Tracy has not adopted criteria for construction groundborne vibration impacts or for operational groundborne vibration impacts that would be applicable to this project. Therefore, for purposes of this analysis, as noted above, the City, in its discretion, elects to utilize the FTA's construction vibration impact criteria are utilized. The FTA threshold of 0.2 in/sec PPV is the potential damage criteria threshold for buildings of non-engineer timber and masonry construction. For operational impacts, a significant impact would occur if project ongoing activities would produce groundborne vibrations that are perceptible without instruments by a reasonable person at the property lines of the site.

Construction

The City of Tracy has not adopted criteria for construction groundborne vibration impacts. Therefore, for purposes of this analysis, as noted above, the City, in its discretion, elects to utilize the FTA's vibration impact criteria are utilized. The FTA has established industry accepted standards and guidelines for vibration impact criteria and impact assessment. This guidance is published in the agency's Transit Noise and Vibration Impact Assessment document.[14] Therefore, for purposes of this analysis, a significant impact would occur if the proposed project would generate groundborne vibration or groundborne noise levels in excess of the FTA impact assessment criteria for construction (0.2 in/sec PPV for non-engineer timber and masonry buildings).

[14] Federal Transit Administration (FTA) 2018. Transit Noise and Vibration Impact Assessment Manual. September.

Groundborne noise is generated when vibrating building components radiate sound, or noise generated by groundborne vibration. In general, if groundborne vibration levels do not exceed levels considered to be perceptible, then groundborne noise levels would not be perceptible in most interior environments. Therefore, this analysis focuses on determining exceedances of groundborne vibration levels. It should be noted that the analysis below demonstrates that groundborne vibration levels would be less than significant, and therefore, it can reasonably be concluded that groundborne noise impacts would therefore be similarly less than significant.

Construction activity can result in varying degrees of ground vibration, depending on the equipment used on the site. Operation of construction equipment causes vibrations that spread through the ground and diminish in strength with distance. Buildings in the vicinity of a construction site respond to these vibrations with varying results ranging from no perceptible effects at the low levels, to slight damage at the highest levels. As shown in the Setting section above, Table 3.12-3 provides approximate vibration levels for various construction activities.

Impact equipment, such as pile drivers, are not expected to be used during construction of the project given the nature of the project and site conditions. Therefore, of the variety of equipment used during construction of this component of the project, the small vibratory rollers that would be used in the site preparation phase of construction would produce the greatest groundborne vibration levels. Small vibratory rollers produce groundborne vibration levels ranging up to 0.101 in/sec PPV at 25 feet from the operating equipment.

The nearest off-site structure to where the heaviest construction equipment would operate during construction of the proposed structures on the western parcels is the barn structure located west of the project site near the intersection of Grant Line Road and Paradise Avenue. This structure would be located approximately 150 feet from the nearest construction footprint where a small vibratory roller would operate. At this distance, operation of a small vibratory roller could result in groundborne vibration levels up to 0.007 in/sec PPV. This is well below the FTA's damage threshold criteria of 0.2 PPV for non-engineer timber and masonry buildings.

The western and northern parcels do not, as of the time of this analysis, have planned construction footprints based on detailed individual development proposals. However, for purposes of a conservative analysis, it assumes that construction activity, such as site preparation, could occur adjacent to the project site boundaries. Therefore, the nearest off-site structure is located over 45 feet from the project site boundary. Therefore, operation of a small vibratory roller at the nearest project boundary could result in groundborne vibration levels up to 0.04 in/sec PPV. This also is well below the FTA's damage threshold criteria of 0.2 PPV for non-engineer timber and masonry buildings.

Therefore, construction activities would not result in generation of excessive groundborne vibration levels at receptors in the project vicinity and construction-related groundborne vibration impacts to off-site receptors would be less than significant.

Operation

The City of Tracy has not adopted criteria for operational groundborne vibration impacts that is applicable to the project. Therefore, for purposes of this analysis, a significant impact would occur if project ongoing activities would produce groundborne vibrations that are perceptible without instruments by a reasonable person at the property lines of a site. Implementation of the proposed project would not include any permanent sources of vibration that would expose persons in the project vicinity to groundborne vibration levels that could be perceptible without instruments at any existing sensitive land use in the vicinity of the project site; this is given the nature of the project and the type of proposed on-site operations (parking lot and truck loading/unloading activity) which, due to distance to off-site receptors, would be less-than-perceptible without instruments as measured at sensitive receptors in the project vicinity. Therefore, operational groundborne vibration impacts would be less than significant.

Level of Significance

Less Than Significant Impact

Excessive Noise Levels from Airport Activity

Impact NOI-4:	**The proposed project would not expose people residing or working in the project area to excessive noise levels for a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport.**

For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, a significant impact would occur if the proposed project would expose people working in the project area to excessive noise levels.

The project site is not located within the vicinity of a private airstrip. Additionally, there is not a private airstrip located within a 5-mile radius of the project. The closest public airport is the Tracy Municipal Airport located 5.3 miles southwest of the project site. The project site is also not located within the 55 dBA CNEL airport noise contours of any public or public use airport. As such, operation of the proposed project would not expose people working at the project site to excessive noise levels associated with public airport or public use airport noise. Therefore, no impact related to exposure of persons residing or working at the project site to excessive noise levels associated with airport activity would occur.

Level of Significance

Less Than Significant Impact

3.12.6 - Cumulative Impacts

The geographic scope for the cumulative analysis for noise and vibration impacts is limited to areas within 1,000 feet of the project site boundary for on-site noise sources, because of the localized nature of noise and vibration impacts. This analysis first evaluates whether the impacts of cumulative development could result in a cumulatively significant noise or vibration impact. If there is a cumulative significant impact, this analysis then considers whether the incremental contribution of the impacts

associated with the implementation of the proposed project would be cumulatively considerable. Both conditions must apply for the project's cumulative effects to rise to the level of significance.

Noise Land Use Compatibility Consistency

Cumulative development would be required to comply with all applicable design review regulations directing the siting, design, and insulation of new development and redevelopment and all applicable noise policies, standards and requirements in the General Plan and Municipal Code, which would ensure that noise impacts are less than significant. Combined cumulative year traffic noise levels along modeled roadway segments in the project vicinity would result in noise levels that the City of Tracy considers to be "normally acceptable" for the relevant land use category (with projected traffic noise levels attenuating due to distance to below 70 dBA L_{dn} at the nearest existing or proposed façades). This is the only noise land use compatibility category that would apply to existing and planned development for parcels adjacent to the modeled roadway segments. Therefore, cumulative traffic noise impacts would be less than significant because it would not result in traffic noise levels that would conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

Because there is not a cumulative significant traffic noise impact to existing or planned land uses in the project vicinity, even under cumulative plus project traffic conditions, the incremental contribution of project traffic would also not be cumulatively considerable.

Construction Noise

As noted above, the geographic scope of the cumulative noise analysis is the project vicinity, including surrounding sensitive receptors. Noise impacts tend to be localized; therefore, the area surrounding the project site (approximately 1,000 feet) would be the area most affected by proposed project activities. Cumulative development would be required to comply with all applicable construction hour requirements and would also be anticipated to incorporate appropriate Best Management Practices (BMPs) to help reduce construction noise. design review regulations directing the siting, design, and insulation of new development and redevelopment and all applicable noise policies, standards and requirements in the General Plan and Municipal Code, which would ensure that noise impacts are less than significant.

Because there is not a cumulative significant construction noise impact to existing or planned land uses in the project vicinity, the incremental contribution of project construction noise would not be cumulatively considerable.

Therefore, the proposed project would result in a less than significant cumulative impact related to construction noise.

Operational Traffic Noise

If there is an identified cumulative traffic noise impact in the project vicinity, and if the proposed project would result in an incremental contribution to an identified cumulative traffic noise impact, then the project's impact would be cumulatively considerable.

However, as shown in the Land Use Compatibility Consistency discussion above, combined cumulative year traffic noise levels along modeled roadway segments in the project vicinity would result in noise levels that the City of Tracy considers to be "normally acceptable" for existing and planned land use development along modeled roadway segments in the project vicinity. Therefore, cumulative traffic noise levels would be a less than significant impact for existing and planned development in the project along modeled roadway segments in the project vicinity.

Because there is not a cumulative significant traffic noise impact to existing or planned land uses in the project vicinity, even under cumulative plus project traffic conditions, the incremental contribution of project traffic would also not be cumulatively considerable.

Operational Stationary Noise

For stationary operational noise sources, a significant impact would occur if the cumulative projects would cause the L_{dn} at noise-sensitive uses to increase by 3 dB or more and exceed the "normally acceptable" level, or cause the L_{dn} at noise-sensitive uses to increase 5 dB or more and remain "normally acceptable," or cause new noise levels to exceed the City of Tracy Noise Ordinance limits of 75 dBA for any one-hour average period at any point on or beyond the project boundary.

The source of operational stationary noise within 1,000 feet of the project site that would produce the highest noise levels would be truck loading activities. Existing truck loading facilities in the project vicinity are setback more than 100 feet from receptors on adjoining properties. Assuming compliance with applicable minimum setback requirements for all parcels within the project site, proposed truck loading areas would also be setback more than 100 feet from receptors on adjoining properties. Assuming a reasonable worst-case scenario of a truck loading event for every proposed truck loading dock within a single hour would result in an hourly average noise level of 67 dBA L_{eq} as measured at a cumulative project's boundary adjoining other properties. These noise levels are well below the City's hourly average noise performance threshold of 75 dBA $L_{eq(h)}$. In addition, these noise levels would not exceed existing background ambient noise levels. Therefore, there is a less than significant cumulative impact related to operational stationary noise sources in the project vicinity.

Because there is not a cumulative significant operational stationary noise impact to existing or planned land uses in the project vicinity, the incremental contribution of project operational stationary source noise would not be cumulatively considerable.

Construction Vibration

The geographic scope of the cumulative construction vibration analysis is the project vicinity, including surrounding sensitive receptors. Construction vibration impacts are very localized; therefore, the area surrounding the project site (approximately 100 feet) would be the area most affected by proposed project construction activities.

While there would be cumulative projects undergoing construction in the general vicinity, none of these are within 100 feet of the site and therefore, do not have to potential to create significant cumulative construction vibration impacts that would exceed potential impact criteria as measured at any sensitive

receptor in the project vicinity. Thus, there would be a less than significant cumulative impact related to construction vibration.

Because there is not a cumulative significant construction noise impact to existing or planned land uses in the project vicinity, the incremental contribution of project construction noise would not be cumulatively considerable.

Operational Vibration

Because operational vibration impacts are very localized, the only potential sources of cumulatively considerable contribution to vibration conditions in the project vicinity would result from introduction of past, present and reasonably foreseeable future permanent sources of groundborne vibration in the project site vicinity. The only major sources of groundborne vibration in the project vicinity is railroad activity along the rail line located approximately 3,670 feet southeast of the project site. Groundborne vibration levels from these cumulative sources would not be perceptible without instruments at any sensitive receptor in the project vicinity, therefore there is no significant cumulative impact.

In addition, the project's incremental contribution to this less than significant cumulative operational vibration levels would not be cumulatively considerable. As discussed above, implementation of the proposed project would not introduce any new permanent sources to the project vicinity that would result in groundborne vibration levels that would be perceptible without instruments as measured at sensitive receptors in the project vicinity and would also not increase railroad activity.

Therefore, implementation of the proposed project would not result in a cumulatively considerable contribution to vibration conditions in the project vicinity. This impact would be less than significant.

Level of Cumulative Significance

Less Than Significant Impact

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Land Use Category	Exterior Noise Exposure (L_{dn})					
	55	60	65	70	75	80
Single-Family Residential						
Multi-Family Residential, Hotels, and Motels		(a)				
Outdoor Sports and Recreation, Neighborhood Parks and Playgrounds						
Schools, Libraries, Museums, Hospitals, Personal Care, Meeting Halls, Churches						
Office Buildings, Business Commercial, and Professional						
Auditoriums, Concert Halls, Amphitheaters						

(a) Residential development sites exposed to noise levels exceeding 60 Ldn shall be analyzed following protocols in Appendix Chapter 12, Section 1208A, Sound Transmission Control, California Building Code.

Normally Acceptable
Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special insulation requirements.

Conditionally Acceptable
Specified land use may be permitted only after detailed analysis of the noise reduction requirements and needed noise insulation features included in the design.

Unacceptable
New construction or development should generally not be undertaken because mitigation is usually not feasible to comply with noise element policies.

Source: City of Tracy

FIRSTCARBON SOLUTIONS™

Exhibit 3.12-1
Land Use Compatibility for Community Noise Environment

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3.13 - Public Services

3.13.1 - Introductions

This section describes the existing conditions related to public services in the City of Tracy (City) and the project site and vicinity, as well as the relevant regulatory framework. This section also evaluates the potential impacts related to public services that could result from project implementation of the proposed project. Information in this section is based, in part, on information obtained from the City of Tracy General Plan (General Plan), the City of Tracy website, the Tracy Police Department, and Fire Marshal Tim Spears with the South San Joaquin County Fire Authority (South County Fire). No comments were received during the Draft Environmental Impact Report (Draft EIR) scoping period related to public services.

3.13.2 - Environmental Setting

Fire Protection and Emergency Medical Services

City of Tracy

South County Fire provides fire protection and emergency medical services to 160 square miles and over 100,000 people, encompassing the City as well as all surrounding rural areas from the Stanislaus County line to the Alameda County line.[1] The City created a new Joint Exercise of Powers Agreement between the Tracy Fire Department and the Tracy Rural Fire Protection District (Tracy Rural) forming South County Fire in 2018. South County Fire maintains six stations and an administrative office. Four stations are located within the City, while two are located within the boundaries of Tracy Rural. A seventh fire station is under construction with an effective operational date of September 2021, which would add to the number of staffed units per day by one, with an additional three persons.

Based on available information, South County Fire staffs six front line Type 1 engines, one front line ladder truck, a Type 2 Hazardous Materials Team, one Type 1 water tender, and a Type 3 light rescue trailer. South County Fire employs a force consisting of 67 professional firefighters, 12 reserve firefighters, a fire chief, three division chiefs, three battalion chiefs, an emergency medical services manager, a fire marshal, three civilian fire inspectors, a plans examiner, and a three-person administrative support staff.[2] A minimum of 22 personnel are maintained for daily operations. Since department firefighters are often the first to arrive to emergency sites, they provide many other valuable services to the community in addition to fire suppression, including Advanced Life Support (ALS) emergency medical treatment, technical rescue services, and response to hazardous material releases.

The goal of South County Fire is to arrive on scene within 6.5 minutes total reflex time (911 call, call processing, firefighter turnout, and travel time) 90 percent of the time for a municipal level of service.[3] The average reflex time for the 2015/2016 year was approximately 9 minutes and 30 seconds. In fiscal year 2019-2020, South County Fire responded to 9,025 calls for emergency services.[4]

[1] South San Joaquin County Fire Authority. History. Website: https://www.sjcfire.org/about-us/overview/history. Accessed July 8, 2021.
[2] Ibid.
[3] Ibid.
[4] South San Joaquin County Fire Authority. History. Website: https://www.sjcfire.org/about-us/overview/history. Accessed August 8, 2021.

South County Fire provides ALS emergency medical services to citizens located within the San Joaquin County Emergency Medical Services Agency (San Joaquin County EMS Agency) Zone C. American Medical Response is the private ambulance service provider under contract with the San Joaquin County EMS Agency. The department currently has 44 paramedics who provide ALS service from six stations where seven units are equipped with a minimum of one paramedic. All other department personnel are trained to the Emergency Medical Technician level. Because of the large geographical area covered by the department, air ambulances (helicopters) are frequently used to deliver medical care in remote areas to avoid unnecessary delays in patient transport.[5]

Project Site

Fire Station 92 at 1035 East Grant Line Road is the nearest fire station to the project site, approximately 1.4 miles to the west. South County Fire responds the closest resources to all emergency and non-emergency calls for service. The next closest station is Fire Station 96 at 1800 West Grant Line Road, approximately 3.6 miles west of the project site. There are currently two residences (one currently occupied) and agricultural uses on the project site, generating associated fire protection and emergency response needs.

Police Protection

City of Tracy

The Tracy Police Department is currently headquartered at 1000 Civic Center Drive. The Police Department contains three bureaus: Bureau of Field Operations, Bureau of Support Services, and the Bureau of Investigations, and currently has 94 sworn law enforcement personnel and 60 professional staff. Tracy Police Department Bureau of Field operations operates three shifts to cover a daily 24-hour time period. Day shift is from 5:30 a.m. to 4:30 p.m., swing shift is from 2:00 p.m. to 1:00 a.m., and grave shift is from 8:00 p.m. to 7:00 a.m. Each team consists of one Sergeant (Supervisor) with a minimum of five officers patrolling and responding to all calls within the City of Tracy ranging from parking complaints to crimes against persons.

The Support Operations Bureau consists of a Records unit, the Communications Unit, the Fiscal Management and Planning Unit and Animal Services Unit. The goal of the Support Operations Bureau is to provide essential support services efficiently and effectively for line operations of the department and to the community members of the City. The Investigations Bureau includes the General Investigations Unit, the Special Investigations Unit, and the Forensic Services Unit.

The ratio of police officers per thousand residents was just under 1 per 1,000 population. The official City of Tracy population estimate in 2020 was 95,931. The Tracy Police Department responded to a total of 137,816 telephone calls, 0.6 percent more that the amount handled in 2018, 76,256 of which were calls for service and 31,523 were 9-1-1 calls. Table 3.13-1 provides a summary of incoming call trends for 2017 and 2018. According to the General Plan, the Police Department's response time for Priority 1 calls within city limits is approximately 6 to 8 minutes.[6] The 2019 average emergency response time for Priority 1 calls was 6 minutes and 52 seconds.[7]

[5] South San Joaquin County Fire Authority. Emergency Medical Services. Website: http://southcountyfa.org/emergency-medical-services.html. Accessed May 11, 2020.
[6] City of Tracy. 2011. General Plan, Public Facilities and Services Element. Page 7-6.
[7] City of Tracy Police Department. 2020. 2019 Annual Report.

Table 3.13-1: Incoming Calls to the Communications Unit (2017 and 2018)

Category	2017 Calls	2018 Calls	2019 Calls
Total Incoming Calls	133,952	137,003	137,816
Calls for Service	73,394	73,666	76,256
9-1-1 Calls	30,008	31,523	31,253
Wireless Calls	23,167	25,292	26,692
Source: Tracy Police Department. 2020. 2019 Annual Report.			

Project Site

Tracy Police Department headquarters is approximately 2.3 miles southwest of the project site. There are currently two residences (one currently occupied) and agricultural uses on the project site, generating associated fire protection and emergency response needs.

Schools

City of Tracy

The Tracy Unified School District (TUSD) provides K-12 education to the residents of Tracy. The City and its planning area are also served by Jefferson Elementary School District, Lammersville Unified School District, Banta Elementary School District, and New Jerusalem School District.

The TUSD comprises seven elementary schools, four K-8 schools, two middle schools, three high schools, a community day school, two continuation high schools, and an adult school program. The Jefferson Elementary School District includes four elementary schools and provides education for students in southern Tracy and south of Tracy. The Lammersville Unified School District includes six elementary schools and one high school for the areas of western Tracy and western unincorporated areas, including the communities of Lammersville and Mountain House. Banta Elementary School District includes an elementary school and a K-8 charter school serving areas of eastern Tracy and the unincorporated community of Banta and surrounding areas. New Jerusalem School District operates a K-8 public school, two K-8 charter schools, a home charter school program, a charter online school, an online charter high school completion program, and a charter high school. New Jerusalem School District serves the unincorporated community of New Jerusalem and surrounding areas.

Project Site

The project site is within the service areas of Banta Elementary School District and Tracy High School. The one occupied residence on-site may house school-aged children, who would be served by the Banta Elementary School District and Tracy High School. The proposed industrial uses would not generate any new demand for schools.

Parks

City of Tracy

As of 2017, the City had 335.3 acres of open park land at 73 sites.[8] Additionally, the City owns 228.5 acres at the planned Holly Sugar Park.[9] Legacy Fields, located on Tracy Boulevard north of Interstate 205 (I-205), is envisioned as a 166-acre sports park at full buildout.

The City of Tracy Parks Master Plan establishes the standard of four acres of parkland per 1,000 residents. Based on 2017 park acreage and a 2017 City population of 90,566, the City was providing only 3.7 acres of parkland per 1,000 residents at the time.[10]

Project Site

Glover Park, a mini park at 584 Pescadero Avenue, is the nearest park to the project site, approximately 1.7 miles to the west. Nonresidential service areas are not subject to park requirements in the Parks Master Plan since these types of uses do not generate any significant park demand. The project site would be in the future Eastside Industrial service area which does not include any planned residential uses.[11]

Libraries

City of Tracy

The Tracy Branch Library of the Stockton-San Joaquin County Public Library system is located at 20 East Eaton Avenue in central Tracy within Lincoln Park. The library includes 130,000 library volumes, CDs, books on tape, e-books, DVDs, and other items.

Project Site

The Tracy Branch Library is approximately 2.5 miles southwest of the project site. There are currently two residences (one currently occupied) on the project site generating associated library service needs.

3.13.3 - Regulatory Framework

State

California Fire Code and California Building Code

The International Fire Code and the International Building Code, established by the International Code Council (ICC) and amended by the State of California, prescribe performance characteristics and materials to be used to achieve acceptable levels of fire protection.

[8] City of Tracy. 2017. Recreation Activity Guide: Park Facilities.
[9] MIG, Incorporated. 2013. City of Tracy Parks Master Plan (New Developments). April 16.
[10] State of California, Department of Finance. 2020. E-5 Population and Housing Estimates for Cities, Counties, and the State — January 1, 2011-2020. May.
[11] City of Tracy. 2013. Parks Master Plan. Website: https://www.ci.tracy.ca.us/documents/Final_Draft_Parks_Master_Plan.pdf Accessed July 19, 2021.

California Health and Safety Code

California Health and Safety Code, Sections 13100–13135, establish the following policies related to fire protection:

Section 13100.1 The functions of the office of the State Fire Marshall, including the California Department of Forestry and Fire Protection (CAL FIRE), shall be to foster, promote, and develop strategies to protect life and property against fire and panic.

Section 13104.6 The Fire Marshall has the authority to require fire hazards to be removed in accordance with the law relating to removal or public nuisances on tax-deeded property.

California Senate Bill 50

Senate Bill (SB) 50 (funded by Proposition 1A, approved in 1998) limits the power of cities and counties to require mitigation of school facilities impacts as a condition of approving new development, and provides instead for a standardized developer fee. SB 50 generally provides for a 50/50 State and local school facilities funding match. SB 50 also provides for three levels of statutory impact fees. The application level depends on whether State funding is available, whether the school district is eligible for State funding, and whether the school district meets certain additional criteria involving bonding capacity, year-round school, and percentage of movable classrooms in use.

California Government Code, Section 65995(b) and Education Code, Section 17620

SB 50 amended Section 65995 of the California Government Code, which contains limitations on Section 17620 of the Education Code, the statute that authorizes school districts to assess development fees within school district boundaries. Section 65995(b)(3) of the Government Code requires the maximum square footage assessment for development to be increased every 2 years, according to inflation adjustments. On January 22, 2020, the State approved increasing the allowable amount of statutory school facilities fees (Level I School Fees) to $4.08 per square foot of assessable space for residential development of 500 square feet or more, and to $0.66 per square foot of chargeable covered and enclosed space for commercial/industrial development.[12] School districts may levy higher fees if they apply to the State and meet certain conditions.

Local

City of Tracy

General Plan

The City of Tracy General Plan sets forth the following goals, objectives, policies, and actions that are relevant to public services:

[12] California Office of Public School Construction. 2021. Annual Adjustment to SFP Grants and Developer Fee History. Website: https://www.dgs.ca.gov/OPSC/Resources/Page-Content/Office-of-Public-School-Construction-Resources-List-Folder/Annual-Adjustment-to-SFP-Grants-and-Developer-Fee-History. Accessed July 8, 2021.

Public Facilities and Services Element

Goal PF 1 Minimal loss of life and property from fires, medical emergencies, and other types of emergencies.

Objective PF-1.1 Strive to continuously improve the performance and efficiency of fire protection services.

Policies

PF-1.1 P1 The City shall provide fire and emergency response facilities and personnel necessary to meet residential and employment growth in the City.

PF-1.1 P2 Ensure that new development pays a fair and equitable amount to offset the costs for fire facilities by collecting a Public Buildings Impact Fee, or by requiring developers to build new facilities.

Objective PF-1.2 Promote coordination between land use planning and fire protection.

Policies

PF-1.2 P1 Fire hazards shall be identified and mitigated during the project review and approval process.

PF-1.2 P2 The City shall build and require roadways that are adequate in terms of width, radius, and grade to facilitate access by City fire-fighting apparatus, while also maintaining and improving Tracy's neighborhood character and hometown feel.

PF-1.2 P5 New developments shall satisfy fire flow and hydrant requirements and other design requirements as established by the Fire Department.

PF-1.2 P6 The City shall use physical site planning as an effective means of preventing wildland fires by requiring the following:

- Drought-resistant native plants incorporated into public works projects.
- More than one ingress/egress road to any neighborhood in areas subject to wildland fires.
- Roadways with grades that accommodate emergency vehicles.
- Structures that are constructed of fire-resistant materials.

Objective PF-2.1 Plan for ongoing management and development of law enforcement services.

Policy

PF-2.1 P2 The City shall ensure that new development pays a fair and equitable amount to offset the capital costs for police service and expansion by collecting a public facilities impact fee.

Objective PF-2.2 Promote coordination between land use planning and law enforcement.

Policies

PF-2.2 P1 Law enforcement hazards shall be identified and mitigated during the project review and approval process.

PF-2.2 P2 Physical site planning should be used as an effective means of preventing crime. This can be achieved by locating walkways, open spaces, landscaping, parking lots, parks, play areas and other public spaces in areas that are visible from buildings and streets.

Goal PF-3 Sufficient educational facilities to meet the demands of existing and new development.

Objective PF-3.3 Ensure that new development is responsible for its impacts on local schools.

Policy

PF-3.3 P1 The City, in cooperation with school districts, shall reserve land for purchase by the districts for the construction of new schools or the collection of school impact fees in accordance with State law.

Goal PF-4 Public buildings that are a source of civic pride for all residents.

Objective PF-4.1 Support the needs of the community through the construction and maintenance of public buildings, such as city hall, community centers, libraries, and the public works facility.

Policies

PF-4.1 P4 The City shall ensure that new development pays its fair share of the costs of public buildings by collecting the Public Buildings Impact Fee.

PF-4.2 P2 The City shall ensure that new residential development pays its fair share of the Public Buildings Impact Fee for the cost of library expansion.

3.13.4 - Impacts and Mitigation Measures

Significance Criteria

According to California Environmental Quality Act (CEQA) Guidelines Appendix G Environmental Checklist, to determine whether impacts related to public services are significant environmental effects, the following question is analyzed and evaluated. Would the proposed project:

Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

a) Fire protection
b) Police protection

c) Schools
d) Parks
e) Other public facilities

Approach to Analysis

FirstCarbon Solutions (FCS) evaluated potential impacts on public services, in part, through review of the relevant positions of the City General Plan and consultation with South County Fire and the Tracy Police Department. FCS sent Public Service Questionnaires to the City of Tracy Fire Department, Police Department, TUSD, and Tracy Branch Library on April 21, 2020, to ask for existing information and get their input on the potential impacts from the project on their respective services. Tracy Fire Department and Police Department have reviewed this section's content and their feedback has been incorporated directly into this analysis.

Specific Thresholds of Significance

According to Appendix G of the CEQA Guidelines, public service impacts from project implementation would be considered significant if the project would:

> . . . result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:
>
> a) Fire Protection?
> b) Police Protection?
> c) Schools?
> d) Parks?
> e) Other public facilities?

Impact Evaluation

Need for New or Altered Fire Protection Facilities

Impact PUB-1:	**The proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection.**

Construction

South County Fire would provide fire protection for the proposed project. The proposed project would require a detachment from Tracy Rural as part of project approval from the San Joaquin Local Agency Formation Commission (LAFCo) of the proposed reorganization. Fire Station 92 is the nearest station approximately 1.4 miles west of the project site. Fire Station 92 is a City-owned fire station; however, South County Fire responds the closest resources to all emergency and non-emergency

calls for service. The next closest station is Fire Station 96, approximately 3.6 miles west of the project site.

As part of project construction, the proposed project would be required to comply with applicable provisions of the California Building Standards Code (CBC), which is adopted by the Tracy Municipal Code Chapter 9.04 Building Code, and the California Fire Code, which is adopted by the Tracy Municipal Code Chapter 9.06 Fire Protection and Prevention. In compliance with the California Fire Code, Part 9 of the CBC, during construction, the proposed project would be required to follow fire safety standards related to provision of fire apparatus access and acquisition of building permits. Specifically, CBC Section 105.7.17 requires plans be submitted and a permit to install, improve, modify, or remove public or private roadways, driveways, and bridges for which Fire Department access is required by the Fire Code; this would ensure adequate driveway/entry turning radius, height clearance, and fire hydrant access for fire trucks and engines at the project site during construction. In addition, CBC Section 105.7.18 requires plans be submitted to the Fire Code official for all land developments or for the construction, alteration, or renovation of a building within the jurisdiction where a building permit is required; this would ensure that construction and alteration would not obstruct Tracy Fire Department from delivering adequate levels of fire protection services and otherwise help to ensure that all applicable standards and requirements are satisfied. Given the foregoing, project construction would not create the need for new or altered fire protection facilities to maintain acceptable service ratios, response times, or other performance objectives for fire protection. Therefore, construction impacts related to fire protection would be less than significant.

Operation

In 2019, the City of Tracy prepared a Municipal Services Review, which evaluated existing and future service conditions, including fire protection services. It was determined that the City has an appropriate process in place to plan and fund fire protection services that would ensure that adequate fire protection staffing, performance levels, and facilities are maintained to serve the City's existing population as well and future growth within the Sphere of Influence (SOI).[13]

Operation of new industrial uses on the project site would result in new employees, which could result in an increase in calls for fire protection and emergency medical services. However, given the nature of the proposed uses, this increase is not expected to be atypical or substantial. While the type of occupancy and associated hazardous use may also increase calls for service or require special equipment, the types of hazardous material used would be limited to fertilizers, herbicides, pesticides, solvents, cleaning agents, and similar materials used for daily site operations and for building and landscape maintenance activities. The use of these materials during project operation would be limited in both quantity and concentration. Given that the City has adequate fire protection staffing, performance levels, and facilities, and the proposed use would not require substantial use of hazardous materials, the proposed project would not cause create a significant impact to fire protection services.

[13] City of Tracy. 2019. Final Tracy Municipal Services Review. July. Website: **Error! Hyperlink reference not valid.**https://www.sjgov.org/uploadedfiles/sjc/departments/lafco/meetings-agenda/2019/finalmsr_tracy_6-22-19.pdf. Accessed August 5, 2021.

As part of operation, the proposed project would be required to comply with applicable provisions of the Tracy Municipal Code, the CBC, and the California Fire Code. Specifically, the proposed project would be required to follow standards for fire safety such as fire flow requirements for buildings, fire hydrant location and distribution criteria, automated sprinkler systems, and fire-resistant building materials. Primary vehicle access to the project site would be from two driveways along Grant Line Road and three driveways along Paradise Road. The proposed project would also include an Emergency Vehicle Access (EVA) driveway from Paradise Road located north of Building A.

As discussed further in Section 3.9, Hazards and Hazardous Materials, Grant Line Road and Paradise Road are public City streets that run east–west and north–south, respectively, along the project frontages, facilitating EVA to the site during project operation. As such, it is not expected that the proposed project would adversely affect response times or increase use of existing fire protection or emergency medical response facilities such that substantial physical deterioration, alteration, or expansion would be required, thereby triggering environmental impacts. Furthermore, the project applicant would be required to pay applicable review and development impact fees toward fire protection facilities and apparatus so that the South County Fire can continue to maintain fire safety standards. Therefore, operational impacts related to need for new or altered fire protection facilities would be less than significant.

Level of Significance

Less Than Significant Impact

Need for New or Altered Police Protection Facilities

Impact PUB-2:	**The proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police protection.**

Construction

In 2019, the City of Tracy prepared a Municipal Services Review, which evaluated existing and future service conditions, including police protection services. It was determined that the City has an appropriate process in place to plan and fund police protection services that would ensure that adequate police staffing, performance levels, and facilities are maintained to serve the City's existing population as well and future growth within the SOI.[14]

The San Joaquin County Sheriff's Department currently provides law enforcement services to the project site. As part of the project approval from San Joaquin LAFCo of the reorganization proposal, the project site would be annexed into the City. After annexation, the Tracy Police Department would provide law enforcement services to the project site, as it does to other residents and businesses throughout the Tracy community.

[14] City of Tracy. 2019. Final Tracy Municipal Services Review. July. Website: **Error! Hyperlink reference not valid.**https://www.sjgov.org/uploadedfiles/sjc/departments/lafco/meetings-agenda/2019/finalmsr_tracy_6-22-19.pdf. Accessed August 5, 2021.

Tracy Police Department headquarters is approximately 2.3 miles southwest of the project site; however, response is not likely to originate from the station but rather from officers who are consistently patrolling the area. During construction, the proposed project would also implement appropriate security measures such as provision of adequate lighting and a project boundary fence around the subject construction area to prohibit access to unauthorized persons other than construction personnel. With adequate police capacity as noted above and provision of security measures, project construction would not create the need for new or altered police protection facilities, and impacts would be less than significant.

Operation

Operation of new industrial uses on the project site would result in new employees, which would result in an increase in calls for police protection services. However, given the nature of the proposed uses, this increase is not expected to be atypical or substantial. Primary access to the project site during operation would be from Grant Line Road and Paradise Road. Responses to calls for service would likely be from patrolling officers. As the Police Department's area of responsibility is increased through the annexation and development, the need may arise to add sectors or beats, which are assigned to officers to patrol. The increase in this responsibility may trigger the need for additional staffing (sworn and professional staff) in order to maintain the response standards and quality of services currently provided by the Tracy Police Department.

In addition to calls for service related to the new number of employees eventually occupying this site, a significant increase in vehicle traffic, both personal vehicles and delivery trucks, is expected, consistent with Police Department's experience and observations at other similar sites in its jurisdiction. This would likely trigger another need for increase of personnel involved in traffic enforcement, particularly commercial vehicle regulations. However, this proposed project is part of the anticipated growth contemplated by the City in its General Plan. As new specific plans and development projects within the SOI are considered, the City reviews the specific details of each project to (1) identify the associated demand for new police facilities and operations, and (2) to identify whether the City's funding, including fees and assessments generated by the new development through the payment of development impact fees, sales tax revenues, and annual Community Facilities District (CFD) assessments, would be adequate to address the demand for police services. Prior to approving any new development project, the City can ensure that any CFD associated with the proposed project, development agreement provisions for funding police services, and development impact fee schedule is appropriately adjusted to reflect anticipated funding gaps.[15] The project applicant would be required to pay applicable review and development impact fees to the Tracy Police Department to help provide for the costs associated with a police facilities building, equipment, and staffing to serve additional demands for police services, as has been contemplated by the City's relevant planning documents. For the foregoing reasons, impacts would be less than significant.

[15] City of Tracy. 2019. Final Tracy Municipal Services Review. July. Website: **Error! Hyperlink reference not valid.**https://www.sjgov.org/uploadedfiles/sjc/departments/lafco/meetings-agenda/2019/finalmsr_tracy_6-22-19.pdf. Accessed August 5, 2021.

Level of Significance

Less Than Significant Impact

Need for New or Altered School Facilities

Impact PUB-3:	**The proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives for schools.**

Construction

Impacts related to provision of or need for construction of new or expanded school facilities are limited to operational impacts. No construction impacts would occur.

Operation

The proposed project would develop various light industrial, warehouse and distribution and related nonresidential uses. As described in Section 4, Effects Found not to be Significant, the proposed project could result in indirect population growth due to the creation of employment opportunities. Once operational, given the nature of the proposed project and its various light industrial, warehouse, and distribution uses, the project site would likely be staffed by employees local to the project area. Based on the light industrial nature of the proposed project, it is expected that approximately 1,871 employees would work on-site.[16] Because the population of the City is currently estimated at 95,931, the total number of employees that may work at the project site represents a relatively nominal increase of approximately 2 percent of the current population of the City.[17] Moreover, as described in Section 4, the proposed project would not include residential units that would directly result in new school-aged children or a substantial unplanned increase in population growth. Therefore, the proposed project would not result in an increase in school enrollment or require expanded or new school facilities, and impacts would be less than significant.

Level of Significance

Less Than Significant Impact

Need for New or Altered Park Facilities

Impact PUB-4:	**The proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives for parks.**

[16] Conversation with Barbara Harb, Economic Development Analyst, City of Tracy-employment data collected by conversations with business owners for various industrial businesses, including warehousing, manufacturing, and employee-intensive (Amazon) warehousing, and existing building square footage data, averaged.

[17] State of California, Department of Finance. 2020. E-5 Population and Housing Estimates for Cities, Counties, and the State — January 1, 2011-2020. May.

Construction

Impacts related to provision of and need for construction of new or expanded park facilities are limited to operational impacts. No construction impacts would occur.

Operation

The proposed project would develop various light industrial, warehouse, distribution, and related uses. Based on the light industrial nature of the proposed project, it is expected that approximately 1,871 employees would work on-site.[18] Because the population of the City is currently estimated at 95,931, the total number of employees that may work at the project site represents a relatively nominal increase of approximately 2 percent of the current population of the City.[19] While it is reasonable to assume that some employees would utilize park facilities during their work day to a certain degree, this use would be limited given the nature of the industrial use and the location of the project site. As described in Section 4, the proposed project would not include residential units that would directly result in the creation of additional park demand that would result in a significant increase in population or existing park use. Therefore, the proposed project would not require new or altered park facilities and would not result in significant environmental impacts to existing park facilities. Operational impacts related to need for new or altered park facilities would be less than significant.

Level of Significance

Less Than Significant Impact

Need for New or Altered Library or Other Public Facilities

Impact PUB-5:	**The proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives for libraries or other public facilities.**

Construction

Impacts related to provision of and need for construction of new or expanded library facilities are limited to operational impacts. No construction impacts would occur.

Operation

Because of the nature of the proposed industrial use and the location of the project site, the proposed project is not expected to result in an increase in use of the Tracy Branch Library. The proposed project would not create a need to construct new or expand existing library facilities and impacts would be less than significant.

[18] Conversation with Barbara Harb, Economic Development Analyst, City of Tracy-employment data collected by conversations with business owners for various industrial businesses, including warehousing, manufacturing, and employee-intensive (Amazon) warehousing, and existing building square footage data, averaged.

[19] State of California, Department of Finance. 2020. E-5 Population and Housing Estimates for Cities, Counties and the State — January 1, 2011-2020. May.

Level of Significance

Less Than Significant Impact

3.13.5 - Cumulative Impacts

The geographic scope of the cumulative public service analysis is the service area of each of the providers serving the proposed project. Because of differences in the nature of the public service topical areas, they are discussed separately. No existing cumulatively significant impacts have been identified for any of these areas, as all service providers are able to achieve the requisite level of service, capacity, or response time.

Cumulative projects including those listed in Table 3-1 in conjunction with the proposed project would result in residential, commercial, industrial, and roadway development. All residential, commercial, and industrial developments are within City jurisdiction, while roadway developments would be implemented by the City, County, and the California Department of Transportation (Caltrans) separately. While most planned future cumulative projects consist of industrial and roadway development, residential projects could increase population within the City by approximately 5,886 persons.[20]

Fire Protection Facilities

The geographic scope of the cumulative fire protection and emergency medical services analysis is the South County Fire service area, which encompasses 160 square miles and over 100,000 people, including the City as well as all surrounding rural areas from the Stanislaus County line to the Alameda County line.

An increase in population of 5,886 due to the buildout of the existing development and planned cumulative projects identified in Table 3-1, along with future development within the South County Fire service area, would result in an increased demand for fire protection facilities. To help offset increased demand, the proposed project and other existing and planned cumulative projects would be required to pay all applicable fees to the Tracy Fire Department and Tracy Rural. All developments would also be required to adhere applicable provisions of the California Fire Code, Part 9 of the CBC, in terms of meeting standards for fire safety such as fire flow requirements for buildings, fire hydrant location and distribution criteria, automated sprinkler systems, and fire-resistant building materials.

With adherence to the CBC and payment of applicable fees, cumulative projects would not result in additional needs for new or altered fire protection or emergency medical facilities not already analyzed within the City and County General Plans, and cumulative impacts would be less than significant. Since the proposed project would have a less than significant impact related to fire protection services, the proposed project would not have a cumulatively considerable contribution to the already less than significant cumulative impact.

[20] Calculation: All cumulative residential units (1,677) x average persons per household (3.51) = 5,886.27 persons.

Police Protection Facilities

The geographic scope of the cumulative police protection analysis is the service area of the Tracy Police Department, which consists of the Tracy city limits and adjoining unincorporated areas.

An increase in population of 5,886 would result in an increased demand for police protection facilities. To help offset increased demand for police protection, the proposed project and other cumulative projects would be required to pay applicable fees to the Tracy Police Department. All developments would also be reviewed for impacts on law enforcement services and required to address any potential impacts with mitigation. Because demand for law enforcement services varies substantially by project (clientele, hours of operation, crime prevention measures, etc.), it is unlikely that there would be substantial overlap in demand that would result in a cumulatively significant impact such that new or expanded police protection facilities are necessary beyond the City's existing capacity and regular review of service levels for future developments.

With payment of applicable fees, cumulative projects would not result in additional need for new or altered police protection facilities not already analyzed within the City General Plan, and impacts would be less than significant. Since the proposed project would have a less than significant impact related to fire protection services, the proposed project would not have a cumulatively considerable contribution to the already less than significant cumulative impact.

School Facilities

The geographic scope of the cumulative school facilities analysis includes the service areas of TUSD, Jefferson Elementary School District, Lammersville Unified School District, Banta Elementary School District, and New Jerusalem School District. Planned projects including those listed in Table 3-1 would result in residential development, though none include any educational facilities. All approved developments, including the projects discussed in Table 3-1 and development within the school service areas, would be required to pay applicable development impact fees toward school district facilities. Pursuant to Government Code Section 65995, payment of adopted development fees is considered "full and complete mitigation" for impacts to school facilities, and local governments are prohibited from assessing additional fees or exactions for school impacts. As part of project entitlement processes, cumulative project applicants would be responsible for paying their fair share of school facility fees. With payment of impact development fees, cumulative projects would not result in additional need for new or altered school facilities not already analyzed within the City General Plan, and impacts would be less than significant.

Because the proposed project would not include the development of any residences, and therefore, would not increase the population in the area, the proposed project would not contribute to cumulative impacts associated with schools.

Park Facilities

The geographic scope of the cumulative park facilities analysis is the city limit. An increase in population of 5,886 would result in an increased demand for park facilities. To help offset this increase, residential cumulative projects would be required to provide parkland or pay applicable development fees. With payment of applicable park impact fees and/or otherwise satisfying park

dedication obligations by cumulative projects, there would be a less than significant cumulative impact related to additional increased use and physical deterioration of existing parks and recreational facilities not already analyzed within the City General Plan.

Because the proposed project would not include the development of any residences, and therefore, would not increase the population in the area, the proposed project would not contribute to cumulative impacts associated with parks.

Library or Other Public Facilities

The geographic scope of the cumulative library and other public facilities analysis is the city limit. An increase in population of 5,886 would result in an increased demand for library facilities. To help offset this increase, cumulative developments would be required to pay development impact fees. With payment of fees by cumulative projects, there would be a less than significant cumulative impact regarding additional need for new or altered library facilities not already analyzed within the City General Plan.

Because the proposed project would not include the development of any residences, and therefore, would not increase the population in the area, the proposed project would not contribute to cumulative impacts associated with libraries.

Level of Cumulative Significance

Less Than Significant Impact

3.14 - Transportation

3.14.1 - Introduction

This section describes existing conditions related to transportation on the project site and vicinity as well as the relevant regulatory framework. This section also evaluates the potential impacts related to transportation that could result from implementation of the proposed project. Information in this section is based, in part, on the project-specific Vehicle Miles Traveled Analysis Memorandum (VMT Memorandum)[1] and Transportation Impact Analysis (TIA)[2] (included as Appendix J). The following comment was received during the Environmental Impact Report (EIR) scoping period related to transportation (Appendix A):

- The additional truck traffic associated with the proposed project could have significant cumulative effects on the residents of Banta in combination with other recent and planned projects in the Northeast Industrial (NEI) Specific Plan area.

3.14.2 - Existing Conditions

The following describes the existing roadways that provide access to the project site and vicinity. The existing roadway network is shown on Exhibit 3.14.1.

Roadway Facilities

State

Interstate 205 (I-205)

Interstate 205 (I-205) is an Interstate Highway that connects Interstate 5 (I-5) with Interstate 580 (I-580) in San Joaquin County and is located in the northern area of the City of Tracy. The highway provides access from the San Francisco Bay Area to northern San Joaquin County. I-205 contains three lanes in each direction, eastbound and westbound. I-205 is adjacent to the north of the project site.

Regional

The following roadways within the vicinity of the Project are in the San Joaquin Council of Governments (SJCOG) Regional Congestion Management Program (RCMP):

Grant Line Road

Grant Line Road is an east–west four-lane divided major arterial with a speed limit of 45 miles per hour (mph) (within the project vicinity). Grant Line Road extends from Byron Road to 11th Street in Banta and provides local and regional access to and from the City of Tracy. Bike and bus facilities are present along Grant Line Road. The RCMP extents of Grant Line Road are from Byron Road to Chrisman Road.

Chrisman Road

Chrisman Road is a north–south two-lane divided major arterial with a speed limit of 40 mph. North Chrisman Road currently extends from Grant Line Road to the railroad and from the railroad to 11th

[1] Kimley-Horn. 2021. Tracy Alliance Vehicle Miles Traveled Analysis Memorandum (prepared for the City of Tracy).
[2] Kimley-Horn. 2021. Tracy Alliance and Northeast Area Annexation Transportation Impact Analysis (prepared for the City of Tracy).

Street, where it becomes South Chrisman Road. No road access is present at the railroad and North Chrisman only provides access to warehousing and distribution centers. The RCMP extents of Chrisman Road are from Vernalis Road to Grant Line Road.

MacArthur Drive

MacArthur Drive is a north–south major arterial that extends from I-205 to the Governor Edmund G. Brown California Aqueduct. Within the project vicinity, North MacArthur Drive is a two-lane divided major arterial from I-205 to Stonebridge Drive and a two-lane undivided major arterial from Stonebridge Drive to 11th Street. The speed limit is 40 mph and bus, and bike facilities are present along MacArthur Drive. The RCMP extents of MacArthur Drive are from Linne Road to I-205.

11th Street

11th Street is an east–west undivided major arterial with left-turn pockets and two-way left-turn lanes and a speed limit of 45 mph (within the project vicinity). 11th Street extends from I-205 (to the east) to I-5 (to the west) and provides regional and local access to/from the City of Tracy. Bus and bike facilities are present along 11th Street. The RCMP extents of 11th Street are from I-205 to I-5.

Local

Paradise Road

Paradise Road is a north–south two-lane undivided minor arterial with left-turn pockets and a speed limit of 40 miles per hour (mph). Paradise Road provides regional access to and from the northeast region of the City of Tracy. No bike or bus facilities are present along Paradise Road.

Pescadero Avenue

Pescadero Avenue is an east–west two-lane undivided minor arterial with left-turn pockets and a two-way left-turn lane. Pescadero Avenue extends from MacArthur Drive to Paradise Road with a speed limit of 35 mph. No bike or bus facilities are present along Pescadero Avenue.

Study Area

The study area includes the main roadways and intersections around the project site that would be most impacted by the proposed project's traffic volumes. Study intersections were selected in consultation with City staff, based on City policy, if the project could add 5 percent or more of the cumulative traffic volume at an intersection and also if changes to the road network in the site vicinity could result in a shift in volumes from one road to another. The study intersections consist of the following 17 intersections within the project site vicinity and are shown below.

- **Intersection No. 1:** Grant Line and Best Buy Driveway/Project Driveway 1
- **Intersection No. 2:** Grant Line Road and Project Driveway 2
- **Intersection No. 3:** Grant Line Road and Paradise Road
- **Intersection No. 4:** Paradise Road and Ryder Distribution Center Driveway/Project Driveway 3
- **Intersection No. 5:** Paradise Road and Ryder Distribution Center Driveway/Project Driveway 4
- **Intersection No. 6:** Paradise Road and Project Driveway 5
- **Intersection No. 7:** Chrisman Road and North Paradise Road (Future Intersection)
- **Intersection No. 8:** Chrisman Road and Pescadero Avenue (Future Intersection)

- **Intersection No. 9:** Grant Line Road and Chrisman Road
- **Intersection No. 10:** I-205 Westbound Ramps and North MacArthur Drive
- **Intersection No. 11:** I-205 Eastbound Ramps and North MacArthur Drive
- **Intersection No. 12:** Pescadero Avenue and North MacArthur Drive
- **Intersection No. 13:** Grant Line Road and North MacArthur Drive
- **Intersection No. 14:** 11th Street and North MacArthur Drive
- **Intersection No. 15:** 11th Street and Chrisman Road
- **Intersection No. 16:** I-205 Westbound Ramps and Chrisman Road (Cumulative)
- **Intersection No. 17:** I-205 Eastbound Ramps and Chrisman Road (Cumulative)
- **Intersection No. 18:** Chrisman Road and South Paradise Road

Vehicle Level of Service (non-CEQA analysis)

Analysis of potential deficiencies caused by a development proposal at roadway intersections is based on the concept of Level of Service (LOS). This analysis is necessary to determine which roadway operational improvements may be required, in accordance with applicable legal requirements related to nexus, to be installed by the subject development or to have the relevant contribution of a proportionate fair share be made by the subject applicant. The LOS of an intersection measures operational conditions. LOS ranges from A (best), which represents minimal delay, to F (worst), which represents heavy delay and a facility that is operating at or near its functional capacity. LOS for this transportation analysis in this Draft EIR were determined using methods defined in the 6th Edition of the Transportation Research Board's Highway Capacity Manual (HCM 6th Edition) and Synchro 10 traffic analysis software.

HCM 6th Edition methodologies include procedures for analyzing side-street stop-controlled (SSSC), all-way stop-controlled (AWSC), and signalized intersections. The SSSC procedure defines LOS as a function of average control delay for each minor street approach movement. Conversely, the AWSC and signalized intersection procedures define LOS as a function of average control delay for the overall intersection. Table 3.14-1 relates the operational characteristics associated with each LOS category for signalized and unsignalized intersections.

Table 3.14-1: Signalized and Unsignalized Intersection LOS Criteria

Level of Service	Description	Signalized (Average control delay per vehicle in seconds/vehicle)	Unsignalized (Average control delay per vehicle in seconds/vehicle)
A	Free flow with no delays; users are virtually unaffected by others in the traffic stream.	Less than 10	L = Less than 10
B	Stable traffic; traffic flows smoothly with few delays.	Less than or equal to 10 to 20	Less than or equal to 10 to 15
C	Stable flow but the operation of individual users becomes affected by other vehicles; modest delays.	Less than or equal to 20 to 35	Less than or equal to 15 to 25
D	Approaching unstable flow. Operation of individual users becomes significantly affected by other vehicles. Delays may be more than one cycle during peak-hours.	Less than or equal to 35 to 55	Less than or equal to 25 to 35

Level of Service	Description	Signalized (Average control delay per vehicle in seconds/vehicle)	Unsignalized (Average control delay per vehicle in seconds/vehicle)
E	Unstable flow with operating conditions at or near the capacity level; long delays and vehicle queueing.	Less than or equal to 55 to 80	Less than or equal to 35 to 50
F	Forced or breakdown flow that causes reduced capacity. Stop and go traffic conditions. Excessive long delays and vehicle queueing.	Greater than or equal to 80	Greater than or equal to 50

Source: Transportation Research Board. 2016. Highway Capacity Manual 6th Edition: A Guide for Multimodal Mobility Analysis. October.

Project-related deficiencies are determined by comparing conditions without the proposed project to those with the proposed project. Project-related deficiencies at study intersections are created when traffic from the proposed project causes the LOS to fall below the maintaining agency's LOS threshold or causes deficient intersections to deteriorate further based on applicable thresholds.

Roadway facilities evaluated in this transportation analysis are located in and maintained by two agencies: the City of Tracy and the California Department of Transportation (Caltrans) District 10. Each agency has developed unique LOS standards, as described in 3.14.3, Regulatory Framework. It was determined that 11th Street is a Congestion Management Plan (CMP) roadway network; however, the SJCOG 2020 RCMP does not identify any intersections along 11th Street as CMP study intersections. Therefore, no RCMP interactions were analyzed.

Existing Peak-Hour Turning Movement Volumes

Existing traffic counts were used and anticipated growth in development trips added to calculate the future traffic volumes and subsequent traffic conditions. Because of the COVID-19 pandemic, traditional traffic counts count not be collected for all study intersections in a way that would accurately reflect traffic conditions. Therefore, to ensure a conservative analysis, Streetlight Data was utilized to provide turning movement counts at study intersections that did not have counts collected within the past 2 years. The City and Caltrans policy is to utilize traffic counts that are current but cannot be more than 2 years old. In addition, Caltrans will not allow any counts conducted during COVID-19, when travel is/was significantly less than "normal" conditions, i.e., before COVID-19. Streetlight Data uses calibrated, anonymized Bluetooth data to estimate vehicle volumes. Streetlight Data has been collected throughout the City and independently verified with existing, traditional turning movement counts. For purposes of the TIA, data collection represents an average of all Tuesdays, Wednesdays, and Thursdays during October 2019, January 2020, and February 2020, excluding holiday weeks. Limitations to Streetlight Data include the lack of peak-hour factors, heavy vehicle percentages and bicycle and pedestrian counts, and data sampling. Peak-hour factors were estimated based on HCM 6th Edition methodology found in Chapter 19. Heavy vehicle percentages were estimated based on existing counts in the vicinity, and pedestrian crossings were conservatively estimated at five per peak-hour. This number is conservative because very few pedestrians use the crosswalks (none were counted). Workers drive to the industrial sites in the area. Table 3.14-2 provides the type of counts used for the study intersections.

Table 3.14-2: Traffic Count Data References

No.	Intersection	Count Type	Date of Count (if available)
1	Grant Line and Best Buy Driveway/Project Driveway	SL	N/A
2	Grant Line Road and Project Driveway 2	SL	N/A
3	Grant Line Road and North Paradise Road	SL	N/A
4	Paradise Road and Ryder Distribution Center Driveway/Project Driveway 3	SL	N/A
5	Paradise Road and Ryder Distribution Center Driveway/Project Driveway 4	SL	N/A
6	Paradise Road and Project Driveway 5	SL	N/A
7	Chrisman Road and North Paradise Road and (Future Intersection)	TMC	February 2019
8	Chrisman Road and Pescadero Avenue (Future Intersection)	Does Not Exist	
9	Grant Line Road and Chrisman Road	TMC	February 2019
10	I-205 Westbound Ramps and North MacArthur Drive	SL	N/A
11	I-205 Eastbound Ramps and North MacArthur Drive	SL	N/A
12	Pescadero Avenue and North MacArthur Drive	SL	N/A
13	Grant Line Road and North MacArthur Drive	SL	N/A
14	11th Street and North MacArthur Drive	SL	N/A
15	11th Street and Chrisman Road	SL	N/A
16	I-205 Westbound Ramps and Chrisman Road (Cumulative)	Does Not Exist	
17	I-205 Eastbound Ramps and Chrisman Road (Cumulative)	Does Not Exist	
18	Chrisman Road and South Paradise Road	SL	N/A

Notes:
SL = Streetlight Data
TMC = Traditional Turning Movement Counts
Source: Kimley-Horn. 2021. Tracy Alliance and Northeast Area Annexation Transportation Impact Analysis (prepared for the City of Tracy).

Streetlight Data does not have data for the Best Buy and Ryder Distribution Center driveways for Intersections No. 1, No. 4, and No. 5; however, trips produced by these sites are on the existing roadway network. Therefore, trip generation was completed for these sites to estimate driveway trips at these intersections and the existing roadway volumes were then balanced based on the driveway trip estimates.

For Intersections No. 7 and No. 9, weekday intersection turning movement volumes were collected on February 2019.

These counts included multiple modes of transportation, i.e., vehicles, bicycles, and pedestrians. Volumes for intersections were collected during the AM and PM peak periods of 7:00 a.m. to 9:00 a.m. and 4:00 a.m. to 6:00 p.m., respectively. All traffic counts were collected when local schools were in session and the weather was fair.

Peak-hour volumes at each intersection's respective peak were conservatively used in this analysis; therefore, some volume imbalances were observed between study intersections. Where imbalances occurred, volumes were conservatively increased above what was counted.

Field observations were conducted on the count data collection days to observe queues and existing conditions. Data and field visits indicate that peak traffic flow occurs for extended periods of time (typically from 7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 7:00 p.m.). The highest 1-hour morning (AM) and 1-hour afternoon/evening (PM) peaks were selected for analysis, consistent with applicable County, City, and State guidelines.

U-turns were analyzed (and illustrated in all figures) as left turns since HCM methodologies do not support analysis of U-turns. Intersection volume data sheets for all traffic counts are provided in in the TIA Appendices (see Appendix J).

Intersection Levels of Service

This transportation analysis does not analyze LOS or transportation deficiencies for Existing Conditions because it is anticipated that Chrisman Road will be constructed and Pescadero Avenue will be realigned as part of the Seefried development to the west of the project site. Existing, approved (but not yet constructed), and project trips will be assigned on the new road network in the vicinity of the project site. Therefore, Background was taken as the base year to reflect the existing and approved roadway improvements and land use developments proposed in NEI.

Queueing

Queueing is analyzed at deficient study intersections where improvements that are already included in the Citywide Transportation Master Plan (TMP) or improvements included as part of Background Conditions would not adequately address an identified significant impact related to queueing.

Existing Public Transit Service and Facilities

Study Area

Existing transit service in the City of Tracy is provided by a local bus service (TRACER) and Altamont Corridor Express (ACE). The bus and rail system provides local and regional connectivity to residents of the City. The San Joaquin Regional Transit District (RTD) County Hopper service serves Tracy destinations.

Bus

TRACER and San Joaquin RTD

TRACER is a bus service the City of Tracy offers to residents. It provides both fixed route and paratransit services to major destinations throughout the City. Its hours of operation are Monday through Friday from 7:00 a.m. to 8:00 p.m. and Saturday from 9:00 a.m. to 7:00 p.m. TRACER does

not operate on Sundays or holidays. In addition, Americans with Disability Act (ADA) Paratransit Service by TRACER is a door-to-door service available to City residents who complete a certification for the service and visitors with ADA documentation. The service is designed to serve ADA/Medicare passengers and those 65 and older.

The San Joaquin RTD County Hopper service travels down Grant Line Road in the project vicinity.

Rail

Altamont Corridor Express

The San Joaquin Regional Rail Commission (SJRRC) provides the ACE commuter rail transit service connecting Stockton to San José. ACE operates on weekdays and weekends, excluding holidays. Under a normal schedule, four westbound trains pass through the City with approximately 1-hour headways at 4:51 a.m., 6:06 a.m., 7:11 a.m., and 7:36 a.m. and between 6:36 a.m. and 9:46 a.m. on Saturdays. Four eastbound trains return through the City with approximately 1-hour headways, at 5:11 p.m., 6:11 p.m., 7:11 p.m., and 8:14 p.m. Monday to Friday and at 5:34 p.m. and 8:54 p.m. on Saturdays.[3] TRACER makes connections with most departures and arrivals, providing transit to the Tracy Transit Station and other stops. However, because of the COVID-19 Pandemic, the 7:11 a.m. and 7:36 a.m. and the 6:11 p.m. and 8:14 p.m. trains have been suspended. In addition, all weekend service has been suspended.

Project Site

Bus

The closest bus stop to the project site is approximately 0.5 mile west at the intersection of Grant Line Road and North Chrisman Road. The stop is served by San Joaquin RTD County Hopper Bus Route 797, connecting to Lathrop, Stockton, and Manteca on weekends.[4] The next nearest bus stop is 1.59 miles to the west at the Shops at Northgate Village. The stop is served by TRACER Route E, connecting to the Tracy Transit Station, and San Joaquin RTD County Hopper bus routes 90 and 97, connecting to Lathrop and Stockton.[5,6,7]

The TRACER Paratransit Service area boundary is adjacent to the southern and western project site boundaries.[8]

Rail

The Tracy Station is located at 4800 South Tracy Boulevard, approximately 4.70 miles southwest of the project site.

[3] San Joaquin Regional Rail Commission. 2020. Schedules and Fares. Website: https://acerail.com/schedules/. Accessed April 8, 2020.
[4] San Joaquin Regional Transit District. 2018. Route 797 Schedule. March 11. Website: http://sanjoaquinrtd.com/route-797/. Accessed April 20, 2020.
[5] City of Tracy. 2019. TRACER Route Map. October. Website: https://www.ci.tracy.ca.us/documents/Route_Map_October_2019.pdf. Accessed April 6, 2020.
[6] San Joaquin Regional Transit District. 2014. Route 90 Map. August 10. Website: http://www.sanjoaquinrtd.com/maps_and_schedules/GIF/90.gif. Accessed April 6, 2020.
[7] San Joaquin Regional Transit District. 2013. Route 97 Map. August 11. Website: http://www.sanjoaquinrtd.com/maps_and_schedules/GIF/97.gif. Accessed April 6, 2020.
[8] City of Tracy. 2017. TRACER Paratransit System Map. November 1.

Bicycle Facilities

Caltrans Highway Design Manual and National Association of City Transportation Officials Urban Bikeway Design Guide define four major types of bicycle facilities:[9]

- **Class I: Multiuse Path—**These paths provide a completely separate right-of-way and are designated for the exclusive use of bicycles and pedestrians with vehicle cross-flow minimized.
- **Class II: Bicycle Lane—**These bicycle lanes provide a restricted right-of-way and are designated for the use of bicycles for one-way travel with a striped lane on a street or highway. These bicycle lanes are generally a minimum of 5 feet wide, and vehicle/pedestrian cross-flow is permitted.
- **Class III: Bicycle Route with Sharrows—**These bikeways provide right-of-way designated by signs or pavement markings for shared use with motor vehicles. These bikeways include sharrows or "shared-lane markings" to highlight the presence of bicyclists.
- **Class IV: Buffered Bicycle Lanes—**These bicycle lanes consist of a physically separate lane for increased comfort and protection of bicyclists. These bicycle lanes can be physically separated by a barrier, such as planters or on-street parking, grade-separated from the roadway, or a painted buffer area. These can also be called cycle-tracks, and can allow for one-way or two-way bicycle travel.

Study Area

In the study area, there is a Class I paved multiuse bicycle path, which is separated from North MacArthur Drive from the I-205 business loop to I-205, spanning approximately 1.8 miles and extending eastward along the northern side of East Pescadero Avenue for less than 0.5 mile. A Class II bicycle lane runs the same length on North MacArthur Drive and ends at the North MacArthur Drive/East Pescadero Avenue intersection. The Class II bicycle lane extends westward on East Pescadero Avenue for approximately 950 feet. There is also a Class II bicycle lane along Grant Line Road from the Joe Pombo Parkway/Grant Line Road intersection that spans approximately 3.80 miles to the east and terminates at the Chabot Court/Grant Line Road intersection.[10]

Project Site

No Class I facilities exist near the project site. Class II facilities exist along Grant Line Road in eastbound and westbound directions, west of Paradise Road. No Class III facilities exist near the project site.

Pedestrian Facilities

Study Area

There are sidewalks on the southern side of Grant Line Road, extending eastward from the Grant Line Road/East Paradise Road intersection for approximately 0.25 mile. There is also a sidewalk on the west side of Paradise Road, running northward from the Ryder Distribution Center entrance at 2795 Paradise

[9] California Department of Transportation (Caltrans). 2009. Highway Design Manual, Chapter 1000 Bicycle Transportation Design. Website: http://www.dot.ca.gov/hq/oppd/hdm-before-5-7-2012-change/oldhdmtoc.htm. Accessed September 20, 2018.

[10] City of Tracy Parks and Community Services Department. 2005. City of Tracy Bikeways Master Plan. April.

Road to the Paradise Road/West Pescadero Avenue intersection; sidewalks are also located on both sides of East Paradise Road for approximately 0.7 mile from the Grant Line Road/East Paradise Road intersection to just west of the East Paradise Road/North Chrisman Road intersection. Sidewalks along both sides of the entirety of Chabot Court provides a pedestrian connection from East Paradise Road to Grant Line Road. There are no sidewalks along California Avenue.

Project Site

Grant Line Road provides sidewalk facilities on both sides of the road up until the project site's frontage. No sidewalks exist along the project site's frontage along Paradise Road. Sidewalks have not been developed at this location because the land is undeveloped.

Vehicle Miles Traveled

In approving Senate Bill (SB) 743 in 2018, the California State Legislature, directed the Governor's Office of Planning and Research (OPR) to develop guidelines for assessing transportation impacts based on Vehicle Miles Traveled (VMT). In response to SB 743, California Environmental Quality Act (CEQA) and its implementing guidelines (CEQA Guidelines) were significantly amended regarding the methods by which lead agencies are to evaluate a project's transportation impacts for purposes of CEQA review. As described in CEQA Guidelines Section 15064.3(a):

> Generally, vehicle miles traveled is the most appropriate measure of transportation impacts. For the purposes of this section, "vehicle miles traveled" refers to the amount and distance of automobile travel attributable to a project. Other relevant considerations may include the effects of the project on transit and non-motorized travel. Except as provided in subdivision (b)(2) below (regarding roadway capacity), a project's effect on automobile delay shall not constitute a significant environmental impact.

This section of the CEQA Guidelines continues to set forth the criteria for analyzing transportation impacts. Currently, the City is studying its own thresholds, but none have been adopted. Accordingly, the City has decided, in its discretion, to utilize OPR guidelines (as described further below) for purposes of conducting this analysis.

The OPR has adopted recommended analysis guidelines for SB 743 in its Technical Advisory on Evaluating Transportation Impacts in CEQA[11] which provides for VMT as the principal measure to replace LOS for determining significant transportation impacts. VMT is a measure of total vehicular travel that accounts for the number of vehicle trips and the length of those trips. The OPR selected VMT, in part, because jurisdictions are already familiar with this metric. VMT is already used in CEQA to study other potential impacts such as greenhouse gas (GHG) emissions, air quality, and energy impacts and is used in planning for regional Sustainable Communities Strategies.

VMT also allows for an analysis of a project's impact throughout the jurisdiction rather than only in the project vicinity, allowing for a better understanding of the full extent of a proposed project's transportation-related impact. It should be noted that SB 743 still recognizes a lead agency's use of

[11] Governor's Office of Planning and Research (OPR). 2018. Technical Advisory On Evaluating Transportation Impacts in CEQA. December. Website: https://www.opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf. Accessed January 7, 2021.

LOS for other planning purposes outside the scope of CEQA. Understanding how the local roadway network functions from an engineering standpoint is still critical to local land use agencies to monitor traffic flow, identify safety issues, establish fees, plan circulation infrastructure, and manage congestion. However, for the purposes of evaluating environmental impacts under CEQA, the new regulations have removed congestion from the range of required subjects analyzed within CEQA documents.

In its discretion, the City has determined to evaluate the proposed project using the Draft City of Tracy VMT Calculator. This methodology follows OPR guidelines for developing VMT thresholds and project VMT calculations. Both the adjusted 2042 City Travel Demand model, which is based on the new SJCOG Travel Demand model, and Big Data were used for this analysis. The data from the Travel Demand model and Big Data was then used to develop a VMT Calculator tool for the City. The VMT tool was developed using outputs from the City's Travel Demand model and Big Data to determine VMT per employee by Traffic Analysis Zone (TAZ). This data was input into the VMT Calculator, and Excel's internal location algorithm is used to locate any address within the City and pull the corresponding VMT information associated with the TAZ that covers that location. As the City's Travel Demand model does not contain as many discrete land use categories as there are types of projects, the VMT Calculator also allows for a drop down of land use types used in the Trip Generation Handbook, 10th Edition, published by the Institute of Transportation Engineers (ITE). These land use types are associated with the model's land use categories to help the user estimate its project's average VMT per employee.

In addition, as discussed on page 4 of the Technical Advisory on Evaluating Transportation Impacts in CEQA, December 20182, CEQA requires analytical techniques be reasonable. The methodologies used in this analysis are consistent with this requirement.

Two data sets, Streetlight Data and Model trips by trip purpose, were combined to determine VMT per employee. The TAZs were first assigned to a census block group based on their respective locations to match the two data sets. The total home-based work attraction trips from the Model were multiplied by the average trip length for work trips to determine total employment VMT. This was then divided by the total employment from the Model for all TAZs within each census block group to determine VMT per capita for each census block group. Thresholds for VMT per capita and VMT per employment were determined by dividing the total VMT within the Tracy Sphere of Influence (SOI) for both trip types and dividing them by the total population and total employment, respectively, within the Tracy SOI. The City's threshold is 9.4 VMT per employee. This is 15 percent below the existing countywide work VMT per employee.

Emergency Access and Routes

Study Area

The main arterial roads into and out of the project vicinity that would be used in case of emergency would be I-205 in the east–west direction and I-5 in the north–south direction. Although not expressly designated as such, given their nature and location, these roads act as the main evacuation routes into and out of the project vicinity.

Project Site

The main points of access to the project site are Paradise Road and Grant Line Road. Emergency access would be provided via these two access points.

3.14.3 - Regulatory Framework

Federal

No federal plans, policies, regulations, or laws related to transportation are applicable to the proposed project.

State

California Department of Transportation Level of Service Goals

Caltrans builds, operates, and maintains the State highway system, including the interstate highway system. Caltrans's mission is to improve mobility statewide. Caltrans operates under strategic goals to provide a safe transportation system, optimize throughput and ensure reliable travel times, improve the delivery of State highway projects, provide transportation choices, and improve and enhance the State's investments and resources. Caltrans controls the planning of the State highway system and accessibility to the system. Caltrans establishes LOS goals for highways and works with local and regional agencies to assess impacts and develop funding sources for improvements to the State highway system. Caltrans requires encroachment permits from agencies or new development before any construction work may be undertaken within the State's right-of-way. For projects that would impact traffic flow and levels of services on State highways, Caltrans would review measures to mitigate the traffic impacts.

SB 743 requires that project VMT be analyzed for CEQA purposes and determination of significant impacts. Caltrans has identified an LOS objective of C/D (i.e., on the "cusp" between levels of service C and D) as the acceptable service level for signalized intersections. For the purposes of this analysis, project-related deficiencies at study intersections are defined to occur when the addition of project traffic:

- Causes operations to deteriorate from an acceptable level (LOS C) to an unacceptable level (LOS D or worse).
- Causes the existing measure of effectiveness (average delay) to deteriorate at a State-operated intersection that is currently operating at worse than LOS C.

The LOS thresholds for Caltrans are taken from the Guide for the Preparation of Traffic Impact Studies.[12] As of May 20, 2020, Caltrans has updated their guidelines (Vehicle Miles Traveled–Focused Transportation Impact Study Guidelines); however, no LOS thresholds are stated. Under some circumstances, Caltrans will work with local agencies to determine an acceptable LOS standard on a case-by-case basis when the study roadway facility is constrained and the LOS C objective is infeasible.

[12] State of California Department of Transportation (Caltrans). 2002. Guide for the Preparation of Traffic Impact Studies. Website: https://nacto.org/docs/usdg/guide_preparation_traffic_impact_studies_caltrans.pdf. Accessed January 7, 2021.

Senate Bill 743

In response to SB 743, as noted above, the OPR updated the CEQA Guidelines to include new transportation-related evaluation metrics. In late 2018, updates to the CEQA Guidelines were finalized and adopted. These changes became effective on December 28, 2018. The updated CEQA Guidelines address SB 743 and require lead agencies to assess VMT impacts when analyzing potential environmental impacts of projects. The updated CEQA Guidelines indicate "a development project that is not exempt and that results in vehicle miles traveled greater than regional average for the land use type may indicate a significant impact." The latest direction from the OPR also lists new exemptions for certain projects with revised screening thresholds (e.g., 100 trips/day, map based, or near transit stations). The City has not yet established specific local VMT thresholds.

The updated guidelines eliminate the use of automobile delay metrics, such as LOS, from determining significant environmental impacts from vehicle travel. VMT has been identified as the most appropriate metric to evaluate a project's transportation impacts, as projects that result in lower-than-average VMT support goals of reducing greenhouse gas emissions, while projects that result in higher-than-average levels of vehicle travel contribute to an increasing rate of greenhouse gas emissions.

Regional

San Joaquin County Regional Congestion Management Program 2021

The purpose of the RCMP is to monitor congestion, identify congestion problems, and establish a programming mechanism aimed at reducing congestion. Designation of a regional transportation system supports RCMP monitoring activities and focuses the implementation of the RCMP on a core network of key transportation facilities that facilitate regional travel within San Joaquin County. Consistent with the implementation of SB 743 CEQA streamlining legislation, the RCMP discontinues the use of LOS for the evaluation of RCMP congestion deficiencies. The RCMP objectives include:

- Improve operational efficiency
- Facilitate goods movement
- Increase use and mode shift to the transit system
- Increase use and mode shift to the bike system
- Support investment in and development of complete streets
- Improve safety
- Support proactive system management
- Support proactive TDM
-

San Joaquin Council of Governments Capital Improvement Program

The SJCOG CMP details the Capital Improvement Program (CIP), the action plan for the CMP that provides a framework for the funding and implementation of regional projects that maintain or improve the transportation performance standards of the CMP. The SJCOG is required to adopt a 7-year CIP every odd-numbered year, which is intended to maintain or mitigate transportation impacts to the region in addition to conforming to transportation-related vehicle emission air quality mitigation measures. All projects in the Regional Transportation Improvement Program must first be listed in the SJCOG's regional CIP. (This applies to most State-funded projects.)

Local

City of Tracy

SB 743 requires that project VMT be analyzed for CEQA purposes and determination of significant impacts. The City of Tracy has established a minimum LOS D traffic operation standard in the General Plan, which is a non-CEQA requirement. For intersections within 0.25 mile of a freeway, the City of Tracy has established a minimum LOS E standard. If an intersection already operates at a LOS E or F in existing conditions, either a Deficiency Plan is required or roadways are allowed to be "grandfathered" at their existing LOS.

Table 3.14-1 relates the operational characteristics associated with each LOS category for unsignalized intersections.

General Plan

Circulation Element

The Circulation Element specifies the general location and extent of existing major streets, LOS, transit facilities, and bicycle and pedestrian networks. As required by law, all facilities in the Circulation Element are correlated with the land uses foreseen in the Land Use Element.[13] The General Plan sets for the following goals and policies that are relevant to transportation in the Circulation Element:

Goal CIR-1—A roadway system that provides access and mobility for all of Tracy's residents and businesses while maintaining the quality of life in the community.

Objective CIR-1.1 Implement a hierarchical street system in which each street serves a specific, primary function and is sensitive to the context of the land uses served

Policies

Policy P1 The City should develop context-based street designs that allow for variations based on the expected function and location of the facility, and the surrounding land use context. These context-sensitive designs should have the following aims:

- Create aesthetically attractive streetscapes.
- Enhance multimodal transportation by increasing mobility and improving safety for autos, trucks, transit, pedestrians, and bicyclists.

Policy P2 The City shall preserve rights-of-way needed for future roadway and freeway interchange improvements through dedication or acquisition as adjacent properties develop or redevelop.

Policy P3 The City shall continue to apply traffic mitigation fee programs to fund transportation infrastructure, based on a fair share of facility use.

Policy P4 The Roadway Master Plan update shall identify necessary improvements to various intersections on I-205 and I-580 based on land use designations and with particular

[13] Design, Community, and Environment. 2011. City of Tracy General Plan (prepared for the City of Tracy).

attention to Terminal Access Routes in accordance with Surface Transportation Assistance Act of 1982 (STAA).

Objective CIR-1.2: Provide a high level of street connectivity.

Policies

Policy P3 New development shall be designed to provide vehicular, bicycle, and pedestrian connections with adjacent developments.

Policy P5 New development shall be designed with a grid or modified grid pattern to facilitate traffic flows and to provide multiple connections to arterial streets.

Objective CIR-1.3: Adopt and enforce LOS standards that provide a high level of mobility and accessibility, for all modes, for residents and workers.

Policies

Policy P1 To the extent feasible, the City shall strive for LOS D on all streets and intersections, with the LOS standard for each facility to be defined in the Transportation Master Plan in accordance with the opportunities and constraints identified through the traffic projections and analysis performed for that Plan. The following exceptions to the LOS D standard may be allowed:

- LOS E or lower shall be allowed on streets and at intersections within one-quarter (1/4) mile of any freeway. This lower standard is intended to discourage interregional traffic from using Tracy streets.

Policy P2 The City may allow individual locations to fall below the City's LOS standards in instances where the construction of physical improvements would be infeasible, prohibitively expensive, significantly impact adjacent properties or the environment, or have a significant adverse effect on the character of the community, including pedestrian mobility, crossing times, and comfort/convenience.

Policy P3 Intersections may be permitted to fall below their adopted LOS standard on a temporary basis when the improvements necessary to preserve the LOS standard are in the process of construction or have been designed and funded but not yet constructed.

Policy P4 Roadways and freeways that are subject to State and regional agency oversight and/or are candidates for State-funded or federally funded improvements should conform to the operational service requirements of the applicable agency.

Policy P5 For long-range planning purposes, the LOS of major streets shall be determined based on an estimation of peak-hour conditions using future average daily traffic forecasts and standard Tracy relationships between daily traffic and peak PM hour traffic.

Policy P6 For project-specific development approvals, the LOS at major street intersections shall be determined based on the direct estimation of peak-hour conditions and

should reflect the average condition prevailing throughout the peak-hour of a typical weekday for all traffic using the intersection.

Policy P7 Traffic studies for new developments within the City may be prepared if necessary and appropriate to determine the impacts of the project's traffic on the transportation system.

Policy P10 Exclusive right turn lanes in and out of major residential, commercial, industrial and office developments shall not reduce the width of public or private landscaping requirements.

Objective CIR-1.4: Protect residential areas from commercial truck traffic.

Policies

Policy P1 Significant new truck traffic generating uses shall be limited to locations along designated truck routes, in industrial areas or within 0.25 mile of freeways.

Policy P2 The City shall enforce designated truck routes based on the existing City ordinance.

Objective CIR-1.6: Maximize traffic safety for automobile, transit, bicycle users, and pedestrians.

Policies

Policy P1 The City shall design streets using context-sensitive design principles that enhance safety for all modes of travel.

Policy P2 New development shall implement traffic calming measures where necessary so long as connectivity is not diminished.

Objective CIR-1.7: Minimize traffic-related impacts such as noise and emissions on adjacent land uses.

Policies

Policy P1 Appropriate buffering and screening mechanisms shall be incorporated in development projects to limit the impacts associated with traffic. These buffering and screening mechanisms may include setbacks, landscaping, berms, sound walls, or other methods as appropriate.

Goal CIR-2: Adequate interregional access.

Objective CIR-2.1: Support regional planning and implementation efforts to improve interregional highways and interregional travel efficiency.

Policies

Policy P4 The City shall work with the City of Lathrop and San Joaquin County to preserve a right-of-way along the existing alignment of Middle Road/Arbor Avenue north of I-205 (a.k.a., Golden Valley Parkway) for the future construction of a regional roadway parallel to I-205. This process should determine appropriate funding mechanisms and the design of an interchange with I-205 at Chrisman Road.

Goal CIR-3: Safe and convenient bicycle and pedestrian travel as alternative modes of transportation in and around the City.

Objective CIR-3.1: Achieve a comprehensive system of citywide bikeways and pedestrian facilities.

Policies

Policy P6 New development shall include pedestrian and bicycle facilities internal to the development and that connect to citywide facilities, such as parks, schools, and recreational corridors, as well as adjacent development and other services.

Policy P7 New development sites for commercial, employment, educational, recreational, and park-and-ride land uses shall provide bicycle parking and/or storage facilities.

Goal CIR-4: A balanced transportation system that encourages the use of public transit and high occupancy vehicles.

Objective CIR-4.1: Promote public transit as an alternative to the automobile.

Policy

Policy P5 The City shall require development to provide for transit and transit-related increased modal opportunities, such as adequate street widths and curb radii, bus turnouts, bus shelters, park-and-ride lots, and multimodal transit centers through the development and environmental review processes, if appropriate.

Safety Element

The Safety Element sets forth policies to protect the community from risks associated with the effects of flooding, seismic and other geologic hazards, and wildland fires.[14] The General Plan sets forth the following goals and policies that are relevant to emergency access routes in the Safety Element:

Goal SA-6: Preparation for emergencies.

Objective SA-6.1: Prepare and update City emergency procedures in the event of natural or man-made disasters.

Policy

Policy P1 Emergency access routes shall be kept free of traffic impediments.

City of Tracy Bikeways Master Plan

The City of Tracy Bikeways Master Plan,[15] adopted in April 2005, is intended to serve as a long-range planning tool that enables the City to develop a unified network of bikeway routes that serves both recreational and commuter needs. The City of Tracy Bikeways Master Plan provides guidance that allows the City to not only meet the needs of the residents of Tracy as they travel within the city limits but also provides access to schools, parks, and employment centers and provides options for

[14] Design, Community, and Environment. 2011. City of Tracy General Plan (prepared for the City of Tracy).
[15] City of Tracy. 2005. City of Tracy Bikeways Master Plan. April. Website: https://www.ci.tracy.ca.us/documents/Bikeways_Master_Plan.pdf. Accessed January 8, 2021.

connectivity to adjacent City and County bike routes. There are four main goals that drive the City of Tracy Bikeways Master Plan:

- Safety
- Access
- Quality of life
- Implementation

Northeast Industrial Specific Plan

The Northeast Industrial Specific Plan (NEI Specific Plan) provides for efficient circulation by automobiles and trucks within the NEI Specific Plan area. The proposed land use mix, street geometry, and proximity to the interstate freeway system help to minimize development-related impacts to Tracy's transportation network.

The distribution, location, and extent of the roadway improvements within the NEI Specific Plan area shall be subject to the NEI Phase I Finance and Implementation Plans, dated December 1999 (Resolution Numbers 99-462 and 99-485); April 1, 2003 (Resolution Number 2003-100); January 4, 2005 (Resolution Number 2005-023); February 21, 2006 (Resolution Number 2006-069); and April 15, 2008 (Resolution Number 2008-065), and the NEI Phase II Finance and Implementation Plans, dated January 2006 (Resolution Number 2006-038) and January 15, 2008 (Resolution Number 2008 010). All future roadway improvements will also be subject to any revisions or updates to the NEI Finance and Implementation Plans and would also be subject to the development impact fees established in those plans. Figures 6, 7A, and 7B in the NEI Specific Plan show the original roadway network and street sections for the NEI Specific Plan, which will be modified by the Finance and Implementation Plan process.[16]

Parking and On-Site Vehicular Circulation

1. Parking, on-site circulation, and loading area standards shall be as required by the provisions of Title 10, Article 26, Off-Street Parking Requirements of the Tracy Municipal Code unless modified below or as part of the Development Review approval. Portions of off-street parking requirements are summarized below.
2. Parking lots containing 10-20 spaces may include a maximum of 20 percent of the total number of spaces for compact cars. These spaces shall be designed and marked in accordance with City standards and distributed throughout the lot. Parking areas containing 20 or more spaces may include a maximum of 30 percent of the total number of spaces for compact cars.
3. Minimum off-street parking standards are provided in Table 3.14-3.

[16] City of Tracy. 2012. Northeast Industrial Specific Plan.

Table 3.14-3: Minimum Off-Street Parking Requirements

Use	Minimum Parking Spaces Required
Warehouse	One space per 1,000 square feet of the first 20,000 square feet of gross floor area, plus one space per 2,000 square feet of the second 20,000 square feet of gross floor area, plus one space per 4,000 square feet of the remaining square feet of gross floor area.
Source: City of Tracy. 2012. Northeast Industrial Specific Plan.	

Loading and Unloading Spaces

1. Sufficient off-street loading and unloading spaces shall be provided on each site, and adequate provisions and space shall be made for maneuvering freight vehicles and handling all freight. All loading activity, including turnaround and maneuvering, shall be made on-site.
2. In commercial areas, truck loading areas and docks shall not be permitted between building(s) and the public street unless enclosed with architectural screen of material similar to building.
3. In industrial areas, truck loading areas and docks shall not be permitted between building(s) and the street unless the building(s) are set back from the curb a minimum of 125 feet and doors are screened by landscaping, berms, and/or fences.
4. Buildings, structures, and loading facilities shall be designed and placed upon the site so that vehicles, whether rear loading or side loading, may be loaded or unloaded at any loading dock, door, or area without extending beyond the property line.

Driveway Standards

Driveways should be carefully located so as not to impede the primary function of the streets, which is to carry through traffic. It should be noted that these spacing guidelines are minimum values. The goal should be to exceed them where possible.

1. Individual industrial parcels on major arterial streets may have driveways, but they should be carefully located so as not to impede the traffic efficiency. In general, parcels with frontage on the major arterials should have their entryway on side streets if possible. If a parcel's only frontage is on the major arterial, every effort should be made to consolidate access at a single driveway. Spacing standards for driveways on major arterials shall be as follows:
   a) Full access driveways: 500 feet minimum
   b) Partial access driveways (right in/out, left-turn in): 500 feet minimum
   c) Right turn in and out: 350 feet minimum upstream from an intersection
   d) Right turn in and out: 200 feet minimum downstream from an intersection
2. On industrial streets, spacing for full access driveways is 450 feet, minimum. "T" intersections are encouraged over four-way intersections. Every effort should be made to consolidate driveways.

3. No driveway shall be located closer than 200 feet to the radius return point at intersections.
4. Driveways shall be a minimum of 25 feet wide. Subsequent development shall demonstrate that driveway width and placement can accommodate truck turning movement and clearing without blocking roadways.
5. Driveway width modifications may be approved with shared (ganged) driveways. Ganged driveways which serve two adjacent sites will be required to install landscaped islands along parking adjacent to the gang driveway and a landscape zone at the end of the common drive will act as a terminus to the view line down the ganged driveway.

a) Full curb returns (as opposed to a standard driveway) shall be utilized for entries to all sites of over 10 acres in size or for common driveways that serve two adjacent sites that together total more than 10 acres.

6. Access driveways shall provide adequate length to accommodate off-street vehicle stacking needs during times of peak use.
7. Parcel entry should be clear, attractive, and inviting; circulation should direct employee and visitor traffic clearly through the site to main building entries and drop-off points and service trucks to loading.
8. In commercial areas, vehicular entries to the site shall be well defined and recognizable to motorists. Improvements should include accent paving, signs, special plantings, and lighting. Such improvements shall not block motorists' sight lines to oncoming traffic.

City of Tracy Municipal Code

Chapter 10.08 Article 26 of the Tracy Municipal Code sets forth the amounts of long-term and short-term bicycle parking that a project must provide. Projects are required to provide bicycle parking based on the required automobile parking. For projects with over 40 required spaces, bicycle parking is required at 5 percent of the automobile spaces.[17]

3.14.4 - Impacts and Mitigation Measures

Significance Criteria

According to CEQA Guidelines Appendix G Environmental Checklist, to determine whether transportation impacts are significant environmental effects, the following questions are analyzed and evaluated. Would the proposed project:

b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

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

d) Result in inadequate emergency access?

[17] City of Tracy Municipal Code. 2020. Chapter 10.08.3510—Bicycle Parking. Website: https://library.municode.com/ca/tracy/codes/code_of_ordinances?nodeId=TIT10PLZO_CH10.08ZORE_ART26OREPARE. Accessed January 8, 2021.

e) Conflict with policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

To analyze the proposed project's potential environmental impacts under CEQA under the foregoing significance thresholds, the City has established standards in the General Plan related to traffic circulation, bicycle and pedestrian circulation, and transit service. Currently, as explained more fully above, the City is studying potential VMT thresholds but has not yet formally adopted one that would apply locally. Accordingly, for purposes of this analysis, the City has determined, in its discretion, to utilize the following criteria to evaluate the significance of transportation impacts under CEQA resulting from implementation of the proposed project.

Vehicle Miles Traveled

According to the Updated CEQA Thresholds of Significance and the Technical Advisory on Evaluating Transportation Impacts in CEQA, VMT impacts could have a significant effect on the environment if the proposed project would:

- Cause additional VMT per capita, per service population, or other appropriate efficiency measure.
- Substantially induce additional automobile travel by increasing physical roadway capacity in congested areas (i.e., by adding new mixed-flow lanes) or by adding new roadways to the network.
- Conflict with a plan, ordinance, or policy addressing the safety or performance of the circulation system, including transit, roadways, bicycle lanes, and pedestrian paths (except for automobile LOS or other measures of vehicle delay).

Alternative Transportation, Bicycle Facilities, Pedestrian Facilities, and Transit Facilities

Transit Facilities

Generally, a project causes a significant impact to transit facilities and services if an element of it conflicts with existing or planned transit services. The evaluation of transit facilities shall consider if:

- A project creates demand for public transit services above the capacity which is provided or planned.
- A project or project-related mitigation disrupts existing transit services or facilities.
- A project or project-related mitigation conflicts with an existing or planned transit facility.
- A project or project-related mitigation conflicts with transit policies adopted by the City, TRACER, and ACE for their respective facilities in the study area.

Bicycle and Pedestrian Facilities

The City of Tracy Bikeways Master Plan describes objectives necessary to ensure that bicycle facilities are safe and effective for City residents but does not provide specific significance thresholds. The City does not have significance thresholds with respect to pedestrian facilities. Though the City does not provide specific significance thresholds with respect to bicycle or pedestrian facilities, using the

Citywide Tracy Bikeways Master Plan and City input as a guide, the following approach is used to determine significant impacts to these facilities.

A significant impact would occur when a proposed project:

- Creates a hazardous condition that currently does not exist for pedestrians and bicyclists or otherwise interferes with pedestrian accessibility to the site and adjoining areas.
- Conflicts with an existing or planned pedestrian or bicycle facility.
- Conflicts with policies related to bicycle and pedestrian activity adopted by the City.

Design Feature Hazards

A significant impact would occur if the proposed project violates roadway design policies set forth in the General Plan or the Tracy Municipal Code.

Emergency Access

The General Plan Circulation and Safety Elements do not provide significance thresholds for emergency access. Ordinance of the City of Tracy number 1247 adopts the 2019 California Fire Code and amends the code to address local conditions. Therefore, this Draft EIR will evaluate the proposed project using the significance threshold provided by the 2019 California Fire Code as follows:

- Emergency apparatus access must be provided with a driving surface of not less than 20 feet unobstructed with within 150 feet of travel distance to all portion of all exterior walls of the proposed building.
- Buildings exceeding 30 feet require approved aerial apparatus access. An aerial apparatus roadway with a minimum unobstructed width of 26 feet shall be provided. This unobstructed 26-foot-wide roadway shall parallel one entire side of the building and must be no closer than 15 feet and no further than 30 feet from the building.

Roadway Facilities

LOS analysis is provided for informational purposes only, to inform the proposed project's conditions of approval (outside of the CEQA context) and to provide relevant data to the decision-makers regarding the proposed project's transportation-related operations. The following criteria were used to determine the proposed project's consistency with applicable General Plan policies and the potential need for related improvements:

Level of Service

City of Tracy

- Minimum LOS D traffic operation standard. For intersections within 0.25 mile of a freeway, the City has established a minimum LOS E standard. If an intersection already operates at a LOS E or F in existing conditions, either a Deficiency Plan is required or roadways are allowed to be "grandfathered" at their existing LOS.

Caltrans

Caltrans has identified an LOS objective of C/D (i.e., on the "cusp" between levels of service C and D) as the acceptable service level for signalized intersections. For the purposes of this analysis, for purposes of determining non-CEQA related operational issues, project-related deficiencies at study intersections are defined to occur when the addition of project traffic:

- Causes operations to deteriorate from an acceptable level (LOS C) to an unacceptable level (LOS D or worse).
- Causes the existing measure of effectiveness (average delay) to deteriorate at a State-operated intersection operating at worse than LOS C.

The LOS thresholds for Caltrans are taken from the December 2002 Guide for the Preparation of Traffic Impact Studies. As of May 20, 2020, Caltrans has updated their guidelines (Vehicle Miles Traveled–Focused Transportation Impact Study Guidelines); however, no LOS thresholds are stated. Under some circumstances, Caltrans will work with local agencies to determine an acceptable LOS standard on a case-by-case basis when the study roadway facility is constrained and the LOS C objective is infeasible.

Approach to Analysis

Kimley-Horn prepared a VMT Memorandum and TIA that evaluated impacts on transportation. The complete analysis is provided in Appendix J. The analysis considers conditions occurring during weekday AM and PM peak-hours.

Vehicle Miles Traveled

The proposed project was evaluated using the City of Tracy VMT Calculator. For the surrounding industrial land use area, the City's threshold is 9.4 VMT per employee. The evaluation tool estimates that the proposed project would generate 16.9 VMT per employee. Therefore, the proposed project exceeds the VMT threshold by 7.5 VMT. Typically workers at warehouses travel from Modesto/Lathrop/Stockton to come and work in Tracy, which yields the higher VMT for the proposed project.

San Joaquin Council of Governments Regional Congestion Management Program

The City's 2012 and Draft 2022 TMPs closely follow the goals and objectives of the RCMP. The improvement of RCMP roadways within the City of Tracy will include multimodal facilities for pedestrians, bicyclists, and transit. The RCMP roadways will also maintain travel time reliability, i.e., the City's General Plan policy maintains LOS D or better at intersection along RCMP roadways unless there are no feasible improvements identified for operational deficiencies. The City Draft 2022 TMP has identified extensive Transportation Demand Management measures and Mobility Hubs to promote a reduction in single-occupancy vehicle trips, consistent with the goals of the RCMP. The proposed project would pay traffic impact fees that will incrementally fund the RCMP network.

Intersection Level of Service Analysis Scenarios

LOS analysis is provided for informational purposes only, to inform the identification of project-related (non-CEQA) conditions of approval that would ensure consistency with applicable General

Plan policies from an operational standpoint but subject to applicable laws related to nexus requirements.

Operation of the transportation network was evaluated under the following scenarios:

- **Background Conditions**–The Background Conditions scenario is based on current traffic conditions with the addition of approved, but not yet constructed, project traffic volumes to the existing roadway geometry and traffic control. Projects included in Background Conditions are provided in Table 3.14-4.

Table 3.14-4: Projects Included in Background Conditions

Project	Characteristics	Square Footage	Location
Seefried Project	High-Cube Warehouse	1,028,000	7351 East Grant Line Road
California Highway Patrol (CHP) Facility	CHP Headquarters	28,162	1175 East Pescadero Avenue
Home Depot Distribution Truck Parking Lot	Northeast Industrial–Light Industrial	804,118	Pescadero Avenue east of MacArthur Drive
Interstate Truck Center	Truck Center	52,516	1310 East Pescadero Avenue
Central Plastics Industrial Building	Northeast Industrial–Light Industrial	60,456	1480 Pescadero Avenue
NEI Phase 3 (Big Bird)	Warehouse	3,485,401	1500 East Grant Line Road
Source: Kimley-Horn. 2021. Tracy Alliance and Northeast Area Annexation Transportation Impact Analysis (prepared for the City of Tracy).			

- **Background Plus Project Conditions**–The Background Plus Project Conditions scenario is based on current traffic conditions with the addition of approved project traffic volumes to the existing roadway geometry and traffic control plus traffic generated by the proposed project.
- **Cumulative Conditions**–The Cumulative Conditions scenario is based on an evaluation of the City's Travel Demand model forecasts. Year 2035 turning movement volumes were extrapolated from the TMP[18] 2035 Horizon Year turning movement figures. For intersections without 2035 data, volumes were estimated using the intersection turning movement volumes provided in the TMP. Adjustments to the 2035 Horizon Year turning movement figures were made for the new NEI Phase 3 project proposed along Grant Line Road.
- **Cumulative Plus Project Conditions**–The Cumulative Plus Project Conditions scenario is based on cumulative traffic conditions plus traffic generated by the proposed project.

The TIA does not analyze LOS or transportation deficiencies for Existing Conditions because it is anticipated that a new extended Chrisman Road alignment will be constructed between Grant Line

[18] RBF Consulting. 2012. Citywide Roadway and Transportation Master Plan (prepared for the City of Tracy). November.

Road and Paradise Avenue, Pescadero Avenue will be realigned where it intersects with the new Chrisman Road, and the Paradise Road intersection with Chrisman Road is realigned. Therefore, Background Conditions were taken as the base year for purposes of this analysis. Exhibits 3.14-1 and 3.14-2 illustrate the study area for the Background and Cumulative Conditions scenarios. Exhibit 3.14-3 shows Background Conditions traffic control and lane geometry, and Exhibit 3.14-4 shows Background Conditions peak-hour volumes.

Trip Generation

For purposes of determining the reasonable worst-case effects of traffic on the surrounding street network, project trips are typically estimated between the hours of 7:00 a.m. and 9:00 a.m. and 4:00 p.m. and 6:00 p.m. on a weekday. While the proposed project itself may generate more traffic during other times of the day, the peak of "adjacent street traffic" represents the time period when the uses contribute to the greatest amount of congestion and, consequently, project-related operational deficiencies. A trip is defined in Trip Generation Manual as a single or one-directional vehicle movement with either the origin or destination at the project site. In other words, a trip can be either "to" or "from" the site. In addition, a single customer visit to a site is counted as two trips (i.e., one to and one from the site).

The City of Tracy Model rates were utilized to determine AM and PM peak-hour trip rates. Since the model does not provide daily average rates and AM and PM distributions, ITE rates were supplemented using the following ITE Trip Generation Manual, 10th Edition,[19], Land Use Code: Land Use 150-High-Cube Transload and Short-Term Storage Warehouse and Land Use 154–Warehousing. These facilities are the most accurate land use assumptions because they incorporate trips for both the office space and the warehouse space consistent with the project description set forth in this Draft EIR. For example, Building B was assumed to be a warehousing facility and not a high-cube warehouse based on information provided by the Tracy Alliance parcels applicant. ITE states that a high-cube warehouse is a building that typically has at least 200,000 gross square feet of floor area, and Building B does not meet this requirement.

The buildings to be developed on the Tracy Alliance parcels are expected to generate a gross of approximately 2,611 daily trips, 225 trips (156 in/69 out) during the AM peak-hour, and 271 trips (83 in/188 out) during the PM peak-hour. Utilizing the above assumptions, the uses to be developed on the Suvik Farms and Zuriakat parcels, collectively, are expected to generate a gross of approximately 2,104 daily trips, 181 trips (125 in/56 out) during the AM peak-hour, and 210 trips (65 in/145 out) during the PM peak-hour. It was conservatively assumed that no trip credits can be applied to the proposed land uses.

Therefore, the proposed project at full buildout is anticipated to generate a total of approximately 4,715 daily trips, 406 trips (281 in/125 out) during the AM peak-hour, and 481 trips (148 in/333 out) during the PM peak-hour. Table 3.14-5 summarizes the proposed project's expected trip generation.

[19] Institute of Transportation Engineers. 2017. Trip Generation Manual, 10th Edition.

Table 3.14-5: Trip Generation

Land Uses	Project Size	Daily	AM Peak-hour		PM Peak-hour	
		Total[1]	Total Peak-hour[1]	In/Out	Total Peak-hour[1]	In/Out
Trip Generation Rates						
Project Use						
High-Cube Warehouse[1]	– ksf	1.40	0.12	69%/31%	0.14	31%/69%
Warehousing[2]	– ksf	1.74	0.17	77%/23%	0.33	27%/73%
Trips Generated						
Tracy Alliance Parcels						
Building A	**978.5 ksf**	**1,370**	**117**	**81/36**	**137**	**42/95**
Passenger Cars[3]		*932*	*81*	*56/25*	*107*	*33/74*
Trucks[3]		*438*	*36*	*25/11*	*30*	*9/21*
Building B	**64.0 ksf**	**111**	**11**	**8/3**	**21**	**6/15**
Passenger Cars[3]		*75*	*8*	*6/2*	*16*	*5/11*
Trucks[3]		*36*	*3*	*2/1*	*5*	*1/4*
Building C	**807.0 ksf**	**1,130**	**97**	**67/30**	**113**	**35/78**
Passenger Cars[3]		*768*	*67*	*46/21*	*88*	*27/61*
Trucks[3]		*362*	*30*	*21/9*	*25*	*8/17*
Tracy Alliance Parcels Buildings Total Trips	***1,849.5 ksf***	***2,611***	***225***	***156/69***	***271***	***83/188***
Passenger Cars		***1,775***	***156***	***108/48***	***211***	***65/146***
Trucks		***836***	***69***	***48/21***	***60***	***18/42***
Suvik Farms and Zuriakat Parcels						
Suvik Farms Parcels	**1,023.7 ksf**	**1,433**	**123**	**85/38**	**143**	**44/99**
Passenger Cars[3]		*974*	*85*	*59/26*	*112*	*34/78*
Trucks[3]		*459*	*38*	*26/12*	*31*	*10/21*
Zuriakat Parcel	**479.2 ksf**	**671**	**58**	**40/18**	**67**	**21/46**
Passenger Cars[3]		*456*	*40*	*28/12*	*52*	*16/36*
Trucks[3]		*215*	*18*	*12/6*	*15*	*5/10*
Suvik Farms and Zuriakat Parcels Total Trips	***1,502.9 ksf***	***2,104***	***181***	***125/56***	***210***	***65/145***
Passenger Cars		***1,430***	***125***	***87/38***	***164***	***50/114***
Trucks		***674***	***56***	***38/18***	***46***	***15/31***
TOTAL TRIPS		***4,715***	***406***	***281/125***	***481***	***148/333***

Land Uses	Project Size	Daily	AM Peak-hour		PM Peak-hour	
		Total[1]	Total Peak-hour[1]	In/Out	Total Peak-hour[1]	In/Out
TOTAL PASSENGER CARS		***3,205***	***281***	***195/86***	***375***	***115/260***
TOTAL TRUCKS		***1,510***	***125***	***86/39***	***106***	***33/73***

Notes:
ksf = thousand square feet
[1] City of Tracy rates used for High-Cube Warehouse AM and PM peak-hour rates.
[2] City of Tracy model rates were utilized for the AM and PM peak-hour rates in addition to trip generation LU 154 average daily rate and AM and PM distribution. Institute of Transportation Engineers (ITE). Trip Generation, 10th Edition. 2017.
[3] ITE guidance for high-cube and warehousing facilities used, 2016.
Source: Kimley-Horn. 2021. Tracy Alliance and Northeast Area Annexation Transportation Impact Analysis (prepared for the City of Tracy).

Trip Distribution and Assignment

Two trip distributions were created for the following scenarios:

- Background Plus Project
- Cumulative Plus Project

Both trip distributions were developed based on, in part, knowledge of the study area and existing traffic counts and the City of Tracy Travel Demand model assignment. The Cumulative Plus Project trip distribution reflects the proposed changes to the road network where the Chrisman Road I-205 interchange is assumed to be implemented, consistent with the TMP.

Background Conditions Trip Distribution and Assignment

The Background Conditions distribution assumes network improvements according to background projects within the NEI Specific Plan. Road network improvements assumed for Background Conditions are provided above and in Appendix J.

The following provides the Background trip distribution assumptions used for **passenger car** project trips:

- 11 percent to/from the east along I-205
- 15 percent to/from the west along I-205
- 2 percent to/from the north along Paradise Road
- 32 percent to/from the west along Grant Line Road
- 20 percent to/from the east along Grant Line Road
- 20 percent to/from the west along 11th Street

The following provides the Background trip distribution assumptions used for **truck project** trips:

- 34 percent to/from the east along I-205
- 33 percent to/from the west along I-205

- 15 percent to/from the east along 11th Street
- 18 percent to/from the south along Chrisman Road

It should be noted that truck traffic is not permitted along Grant Line Road into the County. The distribution and assignment assume that trucks would need to travel along either 11th Street or Chrisman Road to access southbound I-5.

Exhibit 3.14-5 illustrates the distribution for passenger cars and Exhibit 3.14-6 illustrates the distribution for trucks in relation to the project site and study intersections for Background Plus Project Conditions.

Exhibit 3.14-7 shows the net project trip assignment for passenger cars and Exhibit 3.14-8 shows the project trip assignments for trucks that would occur at study intersections during the AM and PM peak-hour during Background Plus Project Conditions.

Cumulative Conditions Trip Distribution and Assignment

The Cumulative Conditions distribution assumes network improvements according to the TMP 2035 Horizon Year. Road network improvements assumed for Cumulative Conditions are indicated in Appendix J.

The following provides the Cumulative Conditions trip distribution assumptions for **passenger car** project trips:

- 11 percent to/from the east along I-205
- 35 percent to/from the west along I-205
- 2 percent to/from the north along Paradise Road
- 10 percent to/from the west along Grant Line Road
- 10 percent to/from the east along Grant Line Road
- 20 percent to/from the west along 11th Street
- 1 percent to/from the south along the MacArthur Extension
- 11 percent to/from the south along Chrisman Road

The following provides the Cumulative Conditions trip distribution assumptions used for **truck** project trips:

- 34 percent to/from the east along I-205
- 33 percent to/from the west along I-205
- 15 percent to/from the east along 11th Street
- 18 percent to/from the south along Chrisman Road

It should be noted that truck traffic is not permitted along Grant Line Road into the County. The distribution and assignment assume that trucks would need to travel along either 11th Street or Chrisman Road to access southbound I-5.

Exhibit 3.14-9 illustrates the assumed distribution for passenger cars and Exhibit 3.14-10 illustrates the assumed distribution for trucks in relation to the project site and study intersections during the Cumulative Plus Project Conditions.

Exhibit 3.14-11 provides the net project trip assignment for passenger cars and Exhibit 3.14-12 provides the net project trip assignment for trucks that would occur at study intersections during the AM and PM peak-hour Cumulative Plus Project Conditions.

Impact Evaluation

Vehicle Miles Traveled

Impact TRANS-1: The proposed project would result in a substantial increase in vehicle miles traveled.

This analysis, as detailed more fully in the VMT Memorandum, evaluated the proposed project's VMT impacts using the City of Tracy VMT Calculator. For the surrounding industrial land use area, the City's draft threshold is 9.4 VMT per employee. The evaluation tool estimated that the proposed project would generate 16.9 VMT per employee. Per OPR guidance, the VMT analysis excludes truck trips. As a result, the proposed project would exceed the threshold.

Per the City's draft VMT threshold and SB 743 guidelines, the proposed project's potential increase in VMT would result in a significant transportation impact. For projects that would cause a VMT impact, VMT reduction strategies, such as introducing Transportation Demand Management (TDM), or additional multimodal infrastructure can, according to research literature and case studies, be used to potentially mitigate the VMT impact.

Table 3.14-6 lists the potential TDM measures that could partially mitigate the proposed project's VMT impact and also shows the estimated maximum TDM reduction that each strategy could achieve. As shown in Table 3.14-6, potential strategies include offering telecommuting work schedules, transit subsidies, an employer-sponsored shuttle program, and marketing of TDM strategies. Implementation of Mitigation Measure (MM) TRANS-1(a), (b) would require the relevant applicant for each individual development proposal within the project site to implement the identified site-specific TDM measures to feasibly reduce project-generated VMT. In addition to the opportunity to mitigate, to the extent feasible, the proposed project's VMT impacts via implementation of a TDM program, the City also is currently working to establish a VMT banking program through which, once adopted, would provide another way to mitigate, to the extent feasible, project impacts. The VMT Mitigation Banking Fee Program is a programmatic approach to respond to the need for feasible VMT mitigation programs. Programmatic approaches that rely on collectively funding larger projects allow a project to provide an amount of mitigation commensurate with its respective impact, include only a single payment without the complexity of ongoing management issues that often occur in connection with TDM programs, and do not require ongoing mitigation monitoring. Programmatic approaches can also provide a public benefit in terms of funding transportation improvements that would not otherwise be constructed, resulting in improvements to congestion, a reduction in greenhouse gas (GHG) emissions, increased transportation choices, and additional opportunities for active transportation. For the foregoing

reasons, this Draft EIR proposes mitigation that enables the relevant applicant of each individual development proposal within the project site mitigate its respective VMT impact, to the extent feasible, by implementing an approved TDM program and paying the applicable banking fee. The California Air Pollution Control Officers Association (CAPCOA) states that for suburban communities such as Tracy, a feasible reduction of 15 percent could be achieved. The City, in its discretion, has elected to utilize this 15 percent threshold as the amount by which the proposed project would need to mitigate. In other words, each relevant applicant would need to reduce its VMT that would otherwise occur in connection with implementation of the relevant individual development proposal by 15 percent (as compared to what would occur without mitigation).

Following is a list of TDM measures (along with the assumed reduction) that would be incorporated into a project-specific TDM program in connection with each individual development proposal:

1. Utilize communication and information strategies–4 percent reduction
2. Support telecommuting for administrative staff (5 percent of staff population)–1 percent reduction
3. Provide designated parking spaces for carpool vehicles–1 percent reduction
4. Provide a transit stop along the project frontage on Grant Line Road, if agreed to by the City–2 percent reduction
5. Provide bike lanes and sidewalks along the project frontage–1 percent reduction
6. Provide on-site bike racks and showers–1 percent reduction

If the relevant applicant for an individual development proposal (1) incorporates the foregoing six TDM measures into a project-specific TDM program, and (2) pays the applicable banking fee (as discussed further below), this would satisfy MM TRANS-1(a) and MM TRANS-1(b) (described below) for purposes of the relevant individual development proposal. If an applicant determines that one of more of the foregoing six TDM measures is not feasible for the individual development proposal at issue, then the relevant applicant may obtain approval from the City of acceptable substitute TDM measure(s) pursuant to Table 3.14-6, and the applicable banking fee would be adjusted accordingly to ensure that payment of this fee, in combination with selected TDM measures, would equate to the required 15 percent reduction.

As noted above, the City is currently pursuing a VMT Mitigation Banking Fee Program; the draft program currently calculates the cost per one (1) VMT reduction as $633.11. However, the VMT Mitigation Banking Fee Program has not yet been finalized and adopted; accordingly, the applicable fee would be the amount provided for under the Mitigation Banking Fee Program adopted by the City Council and effective at the time the relevant applicant for an individual development proposal within the project site obtained building permits. Provided, however, that if the Council has not adopted the Mitigation Banking Fee Program such that it is effective and in place at the time an applicant for an individual development proposal seeks to obtain a building permit, then payment of $633.11 (cost per one (1) VMT reduction) shall constitute compliance for the payment component of MM TRANS-1(b).

For purposes of clarifying how this mitigation would be implemented, following is an example that utilizes, for illustrative purposes only, $633.11 (cost per one (1) VMT reduction). In this example, the applicant for development of the Tracy Alliance parcels proposes to implement a TDM program that would include TDM Nos. 1-6, above, and therefore, this applicant needs to achieve another 5 percent VMT reduction to satisfy MM TRANS-1(a) and MM TRANS-1(b). This is calculated as 5 percent being equivalent to a 0.845 VMT per employee reduction.

Table 3.14-6: Transportation Demand Management Measures

Transportation Demand Management Measure	Description	VMT Reduction
Transit Strategies		
Parking Cash-Out	Provide employees a choice of foregoing current parking for a cash payment to be determined by the employer. The higher the cash payment, the higher the reduction.	2%
Transit Stops	Coordinate with local transit agency to provide bus stop near the site. Real time transportation information displays support on-the-go decision-making to support sustainable trip making.	2%
Implement Neighborhood Shuttle	Implement project-operated or project-sponsored neighborhood shuttle serving residents, employees, and visitors of the project site.	5%
Transit Subsidies	Involves the subsidization of transit fare for residents and employees of the project site. This strategy assumes transit service is already present in the project vicinity.	5%
	Pays for employees to use local transit. This could either be a discounted ticket or a full-reimbursed transit ticket.	
Communication and Information Strategies		
Travel Behavior Change Program	Involves the development of a travel behavior change program that targets individuals' attitudes, goals, and travel behaviors, educating participants on the impacts of their travel choices and the opportunities to alter their habits. Provide a website that allows employees to research other modes of transportation for commuting. Employee-focused travel behavior change program that targets individuals' attitudes, goals, and travel behaviors, educating participants on the impacts of their travel choices and the opportunities to alter their habits.	4%
Promotions and Marketing	Involves the use of marketing and promotional tools to educate and inform travelers about site-specific transportation options and the effects of their travel choices with passive educational and promotional materials. Marketing and public information campaign to promote awareness of TDM program with an on-site coordinator to monitor program.	
Commuting Strategies		
Employer-sponsored Vanpool or Shuttle	Implementation of employer-sponsored employee vanpool or shuttle providing new opportunities for access to connect employees to the project site.	5%

Transportation Demand Management Measure	Description	VMT Reduction
Preferential Carpool/Vanpool Parking Spaces	Reserved carpool/vanpool spaces closer to the building entrance.	1%
Emergency Ride Home (ERH) Program	Provides an occasional subsidized ride to commuters who use alternative modes. Guaranteed ride home for people if they need to go home in the middle of the day due to an emergency or stay late and need a ride at a time when transit service is not available.	4%
On-site Childcare	Provides on-site childcare to remove the need to drive a child to daycare at a separate location.	2%
Telecommuting Alternative Work Schedule	Four-Ten work schedule results in 20 percent weekly VMT reduction, 10 percent trip reduction equals 15 percent VMT reduction.	20%
Shared Mobility Strategies		
Ride Share Program	Increases vehicle occupancy by providing ride share matching services, designating preferred parking for ride share participants, designing adequate passenger loading/unloading and waiting areas for ride share vehicles, and providing a website or message board to connect riders and coordinate rides. Need a point person from the business on-site.	5%
Employee/Employer Car Share	Implement car sharing to allow people to have on-demand access to a vehicle as needed. This may include providing membership to an existing program located within 0.25 mile, contracting with a third-party vendor to extend membership-based service to an area, or implementing a project-specific fleet that supports the residents and employees on-site.	1%
	Provide an on-site car vehicle for employees to use for short trips. This allows for employees to run errands or travel for lunch.	1%
Designated Parking Spaces for Car Share Vehicles	Reserved car share spaces closer to the building entrance.	1%
Bicycle Infrastructure Strategies		
Bike Share Program	Participate in a bike share program/on-site bike share program.	1%
Implement/Improve On-street Bicycle Facility	Implements or provides funding for improvements to corridors and crossings for bike networks identified within a 0.5-mile buffer area of the project boundary to support safe and comfortable bicycle travel.	1%
Include Bike Parking Per City Code	Implements short- and long-term bicycle parking to support safe and comfortable bicycle travel by providing parking facilities at destinations.	
Include Secure Bike Parking and Showers	Implements additional end-of-trip bicycle facilities to support safe and comfortable bicycle travel.	
Bicycle Repair Station/Services	On-site bicycle repair tools and space to use them supports ongoing use of bicycles for transportation.	

Transportation Demand Management Measure	Description	VMT Reduction
Neighborhood Enhancement Strategies		
Pedestrian Network	Implements pedestrian network improvements throughout and around the project site that encourages people to walk.	2%

Notes:
VMT = Vehicle Miles Traveled
- DIBS is a transportation program designed by the San Joaquin Council of Governments to incentivize carpooling or alternative modes of transportation. The website is located here: https://www.dibsmyway.com/.

Source: Kimley-Horn. 2021. Tracy Alliance Vehicle Miles Traveled Analysis Memorandum (prepared for the City of Tracy).

However, even with implementation of the above-referenced TDM strategies (listed as 1-6, above) and payment of the applicable banking fee, as discussed above, the proposed project would still be above the City's VMT threshold of 9.4 VMT per employee and this impact would be significant and unavoidable.

Level of Significance Before Mitigation

Potentially Significant

Mitigation Measures

MM TRANS-1(a) Transportation Demand Management Measures

Prior to issuance of the first building permit for the relevant individual development proposal, the relevant applicant for the individual development proposal at issue shall submit to the City of Tracy Planning Department a Transportation Demand Management (TDM) program that incorporates all of the following six measures (as explained further in Table 3.14-6 of the Draft EIR):

1. Utilize communication and information strategies–4 percent reduction;
2. Offer telecommuting for administrative staff (5 percent of staff population)–1 percent reduction;
3. Designate parking spaces for carpool vehicles–1 percent reduction;
4. Provide a transit stop along the project frontage on Grant Line Road, if agreed to by the City–2 percent reduction;
5. Provide bike lanes and sidewalks along the project frontage–1 percent reduction; and
6. Provide on-site bike racks and showers–1 percent reduction.

Provided, however, that if the relevant applicant determines that one of more of the foregoing six TDM measures is not feasible in connection with the individual development proposal at issue, then the relevant applicant may obtain approval from the City of Tracy Planning Department of acceptable substitute TDM measure(s) pursuant to Table 3.14-6 of the Draft EIR.

The relevant applicant's TDM program, as described above, shall reflect a 10 percent reduction in VMT for the relevant individual development proposal.

MM TRANS-1(b) Payment of Applicable Banking Fee

In addition to the Transportation Demand Management (TDM) program required in MM TRANS-1(a), each applicant for an individual development proposal shall pay the applicable fee as set forth in the adopted Vehicle Miles Traveled (VMT) Mitigation Banking Fee in place and effective at the time the relevant applicant seeks to obtain building permits for its individual development proposal. Provided, however, that if the City Council has not adopted the Mitigation Banking Fee Program such that it is effective and in place at the time an applicant for an individual development proposal seeks to obtain a building permit, then payment of $633.11 (cost per VMT reduction for the relevant individual development proposal) shall constitute compliance with this MM TRANS-1(b).

Level of Significance After Mitigation

Significant and Unavoidable

Roadway Safety Hazards

Impact TRANS-2:	**The proposed project could substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).**

Construction

Construction of the proposed project would require regular deliveries of equipment and materials to the project site as well as daily trips by construction workers. Given the location of the project site, nearly all construction traffic would be expected to access the project site from Grant Line Road and Paradise Road via I-205. This routing would generally avoid residential streets. Project construction activities, including the extension of utility infrastructure, may result in some temporary lane closures in the area. However, the resulting daily and peak-hour traffic volumes during the construction period are anticipated to be less than during project operation as analyzed in the TIA. It should be noted, however, that while the construction schedule assumed for the proposed project assumes that none of the three project phases may overlap, the potential remains for project phases to be constructed concurrently. Therefore, for purposes of a conservative analysis, this Draft EIR considers both scenarios (i.e., sequential and concurrent phasing). In a reasonable worst-case scenario where all three project phases overlap, it is estimated that during the highest trip generation stage of construction the total passenger car and trucks trips would be 56 percent and 47 percent, respectively, of the proposed project trip generation analyzed in the TIA. Therefore, a reasonable worse-case concurrent construction of all phases would not worsen the LOS more than the project LOS operational analyses analyzed in the TIA.

Furthermore, standard construction traffic control measures would be implemented consistent with applicable Caltrans and City policies, such as MM TRANS-2, which would require the preparation and implementation of a construction traffic control plan that would reduce the potential for

construction vehicle conflicts with other roadway users. Therefore, construction impacts related to roadway safety hazards would be less than significant with mitigation.

Operation

Primary vehicle access to the project site would be provided from four access points on Grant Line Road and four access points on Paradise Road; the northerly access point along Paradise Road would be for Emergency Vehicle Access (EVA) only. A new signalized intersection on Grant Line Road would provide access to a New Private Drive that would facilitate on-site circulation for the warehouses and distribution and related uses on the Tracy Alliance parcels as well as access to the Suvik Farms and Zuriakat parcels, as shown in Exhibit 2-7a in the Project Description. The New Private Drive, located along the Tracy Alliance parcels' eastern boundary, would also provide access to the detention basin area. Since no individual development proposal(s) for either the Suvik Farms and Zuriakat parcels have been submitted to the City as of this writing, the exact location(s) of access points from the New Private Drive to the Suvik and Zuriakat parcels have not been identified at this time. Therefore, for purposes of this analysis, this evaluation assumes that a driveway would be placed at the Banta Road intersection and opposite other existing driveways to the south.

Based on the existing traffic volumes on Grant Line Road and Paradise Road, these roadways are projected to operate with minimal delay for vehicles. Given that the entrances and roadways providing access to the proposed project would be required to be in compliance with applicable provisions of the City's Fire Code and other applicable laws and regulations as well as relevant conditions of approval, and would thus operate at acceptable service levels, and furthermore that proposed roadway improvements would further increase roadway safety by being designed according the applicable City of Tracy, Caltrans, and industry standards, impacts associated with roadway design safety hazards would be less than significant.

Truck Trips

The proposed project would result in new truck trips both to and from the project site. Section 3.08.290 of the Tracy Municipal Code establishes truck routes throughout the City, restricting vehicle routes within the City for vehicles with a gross vehicle weight of 5 tons or more or that are licensed commercially as a truck in the state of origin and used for carrying goods for pickup and delivery. Vehicles meeting this requirement would be restricted to specific truck routes and designated streets, except when necessary for egress and ingress by direct route to and from restricted streets for the purpose of loading or unloading.

The 1982 federal Surface Transportation Assistance Act (STAA) allowed larger trucks on the National Network. These larger trucks are called STAA vehicles.[20]

Of relevance here, a STAA truck route study was conducted for the NEI Specific Plan area as part of the Seefried Project (see Table 3.14-4 for additional information about the Seefried project). This Seefried project is a development with warehouse and distribution uses similar to those of the

[20] California Department of Transportation (Caltrans). Service Routes. Website: https://dot.ca.gov/programs/traffic-operations/legal-truck-access/service-access#:~:text=STAA%20Trucks%3A%20The%201982%20federal,see%20Truck%20Lengths%20%26%20Routes.). Accessed December 30, 2020.

proposed project, is located in the NEI Specific Plan area, and has already been approved for construction. For these reasons, this analysis incorporates the findings from that study for STAA truck routing in the area, which also covers the SOI.

An NEI Truck Route Map, which defines STAA truck routing, indicates the existing and interim truck routes. Truck routes from the TMP and the interim routes and proposed signage are shown in Exhibit 3.14-13; the ultimate truck routes and proposed signage are shown in Exhibit 3.14-14. The interim truck routes (excluding the Chrisman Road interchange) would provide access to the existing truck routes and the Chrisman Road extension to Paradise Road, and the ultimate truck routes would provide access to the future interchange. STAA truck turning templates are provided in Appendix J. As shown in Exhibit 3.14-13 and Exhibit 3.14-14, the NEI Specific Plan includes the construction of new truck route signage to direct trucks toward truck routes, the conversion of Grant Line Road to a STAA route, and the construction of new STAA routes in the project vicinity. These improvements would further improve roadway safety by providing appropriate and adequate roadway infrastructure for the trucks that would access the project site. As a result, existing and planned roadways would be able to support proposed STAA trucks that would access the project site consistent with applicable provisions of the Municipal Code. Therefore, trucks accessing the project site would not substantially increase hazards due to a geometric design or incompatible use and impacts would be less than significant.

Level of Significance Before Mitigation

Potentially Significant for Construction-related Impacts

Less Than Significant for Operation-related Impacts

Mitigation Measures

MM TRANS-2 Prepare and Implement Construction Traffic Control Plan

Prior to the start of construction for an individual development proposal, the relevant applicant shall prepare and submit a Construction Traffic Control Plan for the individual development proposal at issue. Each plan shall include the following items. Each approved plan shall be implemented during construction of the individual development proposal at issue.

- Project staging plan to maximize on-site storage of materials and equipment.
- Permitted construction hours.
- Location of construction staging.
- Provisions for street sweeping to remove construction-related debris on public streets.
- A set of comprehensive traffic control measures including preparation of traffic control plans, as needed; scheduling of major truck trips and deliveries to avoid peak-hours; lane closure proceedings; signs, cones, and other warning devices for drivers; and designation of construction haul routes.
- Survey of the pavement condition on roadways within the relevant individual development to be used as part of the haul route prior to the commencement of

any work on-site. The survey shall include a video tape of the roadways. Each relevant applicant shall complete any remedial work prior to initiation of use and provide a bond assuring completion of the remediation work triggered by the individual development proposal, the amount which shall be deemed sufficient by the Public Works Department.

- The relevant applicant shall provide a pavement analysis for those roads along the proposed haul routes or any alternate route(s) that are proposed to be utilized by hauling operation for the individual development proposal at issue. This study shall analyze the existing pavement conditions and determine what impact the hauling operation will have over the construction period of the relevant individual development. The study shall provide recommendations to mitigate identified impacts, which shall be implemented by the relevant applicant for the individual development proposal at issue.

Level of Significance After Mitigation

Less Than Significant

Emergency Access

Impact TRANS-3: The proposed project would not result in inadequate emergency access.

Construction

During the construction period for each individual development proposal within the project site, it is anticipated that two-way travel would be maintained on Paradise Road and Grant Line Road. Should Paradise Road or Grant Line Road experience temporary one-way travel restrictions or be closed to travel, there are multiple access routes to I-205 and I-5 which act as the main evacuation routes into and out of the project vicinity. Construction detour signage would be provided. For the foregoing reasons, and as further discussed in Section 3.9, Hazards and Hazardous Materials), impacts associated with inadequate emergency access during construction would be less than significant.

Operation

Several factors determine whether a project has sufficient access for emergency vehicles, including:

- Location of closest fire stations.
- Number of access points (both public and emergency access only).
- Width, height, and turning radius of access points.
- Width, height, and turning radius of internal roadways.

Each of these factors is discussed in further detail below.

Fire Station 92 at 1035 East Grant Line Road is the nearest fire station to the project site, approximately 1.4 miles to the west. Fire Station 92 is a City-owned fire station; however, South County Fire responds the closest resources to all emergency and non-emergency calls for service. The nearest Tracy Fire Station is Station 96, located at 1800 West Grant Line Road, approximately 3.6

miles west of the project site. Primary fire protection access to the project site would occur from existing roadways that would not be changed as part of the proposed project.

The proposed project would be served by eight points of vehicular access (the northerly access point along Paradise Road would be for EVA only):

- Grant Line Road: four access points to the project site.
- Paradise Road: four access points to the project site (the northerly access point along Paradise Road would be for EVA only).

Since no application for individual development proposal(s) for either the Suvik Farms or Zuriakat parcels has been submitted to the City as of this writing, it is too speculative and uncertain to identify the exact location(s) of access points from the New Private Drive to the Suvik and Zuriakat parcels. Therefore, for purposes of this analysis, this evaluation reasonably assumes that a driveway would be placed at the Banta Road intersection and opposite other existing driveways to the south.

Thus, the proposed project would provide a total of eight vehicular access points to the project site from surrounding roadways. The provision of these access points would satisfy the applicable California Fire Code's emergency access requirements. Moreover, as the width of these access points and internal roadways would need to adhere to all other applicable requirements and standards, including the following. All access points and internal roadways for the project site would be required to be compliant with Section 503, Fire Apparatus Access Roads, of the California Fire Code,[21] as well as Chapter 9.06 of the Tracy Municipal Code, which would ensure that access roadways can accommodate fire apparatus vehicles via a minimum width of 20 feet and an unobstructed vertical clearance of not less than 13 feet 6 inches, along with adequate turning radius as determined by the fire code official. For the foregoing reasons, and as further discussed in Section 3.9, Hazards and Hazardous Materials), impacts related to adequate emergency access would be less than significant.

Level of Significance

Less Than Significant

Alternative Transportation Policies

Impact TRANS-4:	**The proposed project would not conflict with policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.**

Construction

Transit Facilities

Grant Line Road provides sidewalk facilities on both sides of the road up until the project site's frontage. No sidewalks currently exist along the project site's frontage along Paradise Road as the land is undeveloped. The closest bus stop to the project site is approximately 0.5 mile west at the intersection of Grant Line Road and North Chrisman Road. The next nearest bus stop is

[21] International Code Council, Digital Codes. 2020. 2019 California Fire Code, Title 24, Part 9 with Jan 2020 Errata. Website: https://codes.iccsafe.org/content/CFC2019P2. Accessed January 14, 2021.

approximately 1.59 miles to the west at the Shops at Northgate Village. The Tracy Station is the closest ACE station to the project site, located at 4800 South Tracy Boulevard approximately 4.70 miles southwest of the project site, and would provide ACE service to the project site.

Because there are no sidewalks currently provided along the proposed project frontage or along California Avenue, construction of the proposed project would not adversely affect or otherwise conflict with existing pedestrian access to TRACER or ACE or the service for these transit agencies. Should Paradise Road or Grant Line Road be temporarily shut down during construction, there are alternative roadway connections to these transit facilities and access to these facilities would remain available throughout construction. Therefore, construction impacts related to circulation system performance in terms of transit facilities would be less than significant.

Bicycle Facilities

No Class I facilities exist near the project site. Class II facilities exist along Grant Line Road in eastbound and westbound directions, west of Paradise Road. No Class III facilities exist near the project site. Because there are no existing bicycle facilities along the frontage of Paradise Road or Grant Line or California Avenue, road construction of the proposed project would not result in the temporary closure of bicycle facilities during construction. Therefore, construction impacts related to circulation system performance in terms of bicycle facilities would be less than significant.

Pedestrian Facilities

As described above, there are no sidewalks currently provided along Grant Line Road or Paradise Road along the proposed project frontage or along California Avenue. Because there are no sidewalks along Grant Line Road or Paradise Road along the proposed project frontage or along California Avenue, construction of the proposed project would not result in temporary closures of sidewalk facilities. Therefore, construction impacts related to circulation system performance in terms of pedestrian facilities would be less than significant.

Operation

Transit Facilities

The closest bus stop to the project site is approximately 0.5 mile west at the intersection of Grant Line Road and North Chrisman Road. As part of the proposed project's frontage improvements, it is anticipated that the proposed project would construct a Class I path (that would accommodate both pedestrians and bicycles) per the TMP for both Grant Line Road and Paradise Road. Therefore, the proposed project would provide a bicycle and pedestrian connection to the Class II bicycle facilities and sidewalks that exist along Grant Line Road in eastbound and westbound directions west of Paradise Road that would ultimately provide access to the nearest transit facility.

Paradise Road and Grant Line Road would still provide roadway access to these transit facilities. Given the nature of the proposed project and its location, it is anticipated that many employees would drive to the site and the proposed project would add a minimal number of additional transit riders and would not exceed existing transit capacity. Therefore, operation of the proposed project would not interfere with or otherwise adversely and significantly impact service for these transit agencies. Therefore, operational impacts related to circulation system performance in terms of transit facilities would be less than significant.

Bicycle Facilities

No Class I facilities exist near the project site. Class II facilities exist along Grant Line Road in eastbound and westbound directions west of Paradise Road. No Class III facilities exist near the project site. As part of the proposed project's frontage improvements, it is anticipated that the proposed project would construct a Class I path per the TMP for both Grant Line Road and Paradise Road. Therefore, the proposed project would provide a bicycle connection to the Class II facilities that exist along Grant Line Road in eastbound and westbound directions west of Paradise Road, which would improve the existing bicycle network. In addition, pursuant to the parking requirements of Tracy Municipal Code Chapter 10.08 Article 26, the proposed project would provide approximately 59 number of bicycle parking spaces. Bicycle racks (single-sided or double-sided racks or equivalent) would be located near the office entrances of each building to provide for the secured parking of bicycles. The required spaces for bicycle parking would be evenly distributed among the office locations within each building pursuant to applicable standards and requirements. Overall, the proposed project would not conflict with adopted policies, plans, or programs regarding bicycle facilities or otherwise decrease the performance or safety of such facilities. Therefore, operational impacts related to circulation system performance in terms of bicycle facilities would be less than significant.

Pedestrian Facilities

As described above, there are no sidewalks currently provided along Grant Line Road or Paradise Road along the proposed project frontage or along California Avenue. As part of the proposed project's frontage improvements, it is anticipated that the proposed project would construct a Class I path (that would accommodate both pedestrians and bicycles) per the TMP for both Grant Line Road and Paradise Road that would provide access to the existing sidewalk network. Therefore, the proposed project would improve the existing pedestrian network. The proposed project would not impede the use of existing sidewalks, and it is not anticipated that the proposed project would substantially increase pedestrian activity in the project vicinity. Therefore, operational impacts to pedestrian facilities associated with the proposed project would be less than significant.

Level of Significance

Less Than Significant

3.14.5 - Non-CEQA Level of Service Analysis (provided for information purposes only)

For the reasons explained above, the following non-CEQA analysis of intersection LOS under various project conditions is provided for informational purposes only. The analysis will inform the creation of conditions of approval for the proposed project, subject to applicable laws related to nexus requirements, to ensure consistency with applicable provisions of the General Plan.

Construction

The assessment of construction activity considers construction vehicles (including vehicles removing or delivering fill material, bulldozers, and other heavy machinery, as well as building materials delivery) and construction worker activity.

The proposed project would require a total of approximately 500,000 cubic yards of grading, which would be balanced on-site; therefore, no export or import of materials would be required. It is expected that equipment would be staged on the site prior to beginning work and would be removed at completion of the relevant construction phase**.** Trucks would be needed to bring building materials to the site prior to beginning work, and truck traffic would follow designated truck routes. Since a construction traffic control plan was not available at the time this Draft EIR was prepared, MM TRANS-2, as provided in Impact TRANS-2, is recommended.

MM TRANS-2 would require the preparation and implementation of a construction traffic control plan for each individual development proposal, which would reduce the potential for construction vehicle conflicts with other roadway users.

Operation

Background Plus Project Conditions

Traffic operations were evaluated at the study intersections under Background Plus Project Conditions. Exhibit 3.14-15 illustrates the Background Plus Project Conditions traffic control and geometry and Exhibit 3.14-16 shows the Background Plus Project Conditions peak-hour traffic volumes. Table 3.14-7 shows the LOS at study intersections during Background Plus Project Conditions. Table 3.14-8 shows the LOS at the study intersections during Background Plus Project Conditions without the Suivak Farms and Zuriakat parcels.

Because the proposed project would be constructed in phases, a phased approach was used for this analysis to ensure a fair share apportionment of improvement costs. In the limited purpose of this phased approach, it was assumed that the Tracy Alliance parcels would be developed first (i.e., in the short-term) while the Suvik Farms and Zuriakat parcels would be developed in the Cumulative Conditions.

It should be noted, however, that while the construction schedule for the proposed project assumed that none of the three project phases may overlap, the potential remains for project phases to be constructed concurrently. In a reasonable worst-case scenario where all three project phases overlap, it is estimated that during the highest trip generation stage of construction the total passenger car and trucks trips would be 56 percent and 47 percent, respectively, of the proposed project trip generation analyzed in the TIA. Therefore, a reasonable worse-case, concurrent construction of all phases would not worsen the LOS more than the project LOS operational analyses analyzed in the TIA as described below.

For the reasons set forth above, failing intersections from the analysis that included all parcels within the project site were analyzed without the Suvik Farms and Zuriakat parcels to determine whether the operation of the proposed uses on the Tracy Alliance parcels by themselves would degrade the intersections to below an acceptable LOS.

Table 3.14-7: Background Plus Project Conditions Intersection Level of Service (Project at Full Buildout)

No.	Intersection	Maintaining Agency[1]	Control Type	Background Conditions						Background Plus Project Conditions (Project at Full Buildout)					
				AM Peak-hour			PM Peak-hour			AM Peak-hour			PM Peak-hour		
				MVMT	Delay	LOS	MVMT	Delay	LOS	MVMT	Delay	LOS	MVMT	Delay	LOS
1	Grant Line Road and Best Buy Driveway/Project Driveway 1	Tracy	Signal	–	16.4	B	–	24.8	C	–	27.5	C	–	28.0	C
2	Grant Line Road and Chabot Court/Project Driveway 2	Tracy	SSSC	–	0.1	A	–	0.1	A	–	0.1	A	–	0.2	A
	Worst Approach			*NB*	*9.4*	*A*	*NB*	*14.1*	*B*	*SB*	*13.6*	*B*	*NB*	*14.9*	*B*
3	Grant Line Road and North Paradise Road	Tracy	Signal	–	33.4	C	–	34.6	C	–	26.2	C	–	33.0	C
4	Paradise Road and Ryder Driveway/Project Driveway 3	Tracy	SSSC	–	2.1	A	–	3.2	A	–	1.9	A	–	2.8	A
	Worst Approach			*EB*	*9.5*	*A*	*EB*	*9.7*	*A*	*WB*	*11.1*	*B*	*WB*	*10.1*	*B*
5	Paradise Road and Ryder Driveway/Project Driveway 4	Tracy	SSSC/ Signal	–	2.6	A	–	4.0	A	–	12.0	B	–	13.3	B
	Worst Approach			*EB*	*9.4*	*A*	*EB*	*9.3*	*A*						
6	Paradise Road and Project Driveway 5	Tracy	SSSC	Intersection Does Not Exist						–	0.4	A	–	0.5	A
	Worst Approach									*WB*	*10.4*	*B*	*WB*	*9.7*	*A*
7	Chrisman Road and North Paradise Road	Tracy	AWSC	–	7.9	A	–	7.7	A	–	8.0	A	–	7.9	A
8	Chrisman Road and Pescadero Avenue	Tracy	Signal	–	15.8	B	–	15.4	B	–	15.7	B	–	16.0	B
9	Grant Line Road and Chrisman Road	Tracy	Signal	–	18.8	B	–	24.2	C	–	19.8	B	–	25.6	C
10	I-205 WB Ramps and North MacArthur Drive	Caltrans	Signal	–	28.2	C	–	31.7	C	–	48.6	D	–	50.7	D
11	I-205 EB Ramps and North MacArthur Drive	Caltrans	Signal	–	23.5	C	–	52.6	D	–	35.7	D	**–**	**65.5**	**E**

No.	Intersection	Maintaining Agency[1]	Control Type	Background Conditions						Background Plus Project Conditions (Project at Full Buildout)					
				AM Peak-hour			PM Peak-hour			AM Peak-hour			PM Peak-hour		
				MVMT	Delay	LOS	MVMT	Delay	LOS	MVMT	Delay	LOS	MVMT	Delay	LOS
12	Pescadero Avenue and North MacArthur Drive	Tracy	Signal	–	20.6	C	–	26.7	C	–	21.8	C	–	31.9	C
13	Grant Line Road and North MacArthur Drive	Tracy	Signal	–	**66.7**	**E**	–	**86.5**	**F**	–	**96.4**	**F**	–	**99.4**	**F**
14	11th Street and North MacArthur Drive	Tracy	Signal	–	11.6	B	–	19.6	B	–	12.4	B	–	23.0	C
15	11th Street and Chrisman Road	Tracy	Signal	–	38.6	D	–	29.0	C	–	40.8	D	–	29.5	C
16	I-205 WB Ramps and Chrisman Road	Caltrans	Signal	Intersection Does Not Exist											
17	I-205 EB Ramps and Chrisman Road	Caltrans	Signal	Intersection Does Not Exist											
18	Chrisman Road and South Paradise Road[7]	Tracy	AWSC	–	14.8	B	–	**57.0**	**F**	–	14.8	B	–	**57.0**	**F**

Notes:
AWSC = All-Way Stop Control
EB = eastbound
LOS = Level of Service
MVMT = movement
NB = northbound
Signal = Signal Control
SSSC = Side-Street Stop Control

[1] LOS thresholds for Caltrans are taken from the December 2002 Guide for the Preparation of Traffic Impact Studies. As of May 20, 2020, Caltrans has updated their guidelines (Vehicle Miles Traveled–Focused Transportation Impact Study Guidelines); however, no LOS thresholds are stated.
- Analysis performed using HCM 6th Edition methodologies.
- Delay indicated in seconds/vehicle.
- Tracy LOS standard is D unless the intersection is within 0.25 mile of the freeway.
- Intersections that operate below maintaining agency's LOS standard are highlighted and shown in **bold.**
- Because of limitations of HCM, Intersection No. 18 cannot be analyzed with more than three approach as an All Way Stop. Therefore, only three lanes were assumed for the northbound and southbound approach. The proposed geometry is provided in Exhibit 3.14-15.

Source: Kimley-Horn. 2021. Tracy Alliance and Northeast Area Annexation Transportation Impact Analysis (prepared for the City of Tracy).

As shown in Tables 3.14-7, with the addition of project (full buildout) traffic, **Intersection 11 (I-205 EB Ramps and North MacArthur Drive)** would decrease from LOS C to D in the AM peak-hour but would not exceed LOS E, which is the threshold for the City. However, in the PM peak-hour project-generated traffic would cause a decrease in LOS from LOS D (52.6 second delay) to LOS E (65.5 second delay).

As shown in Table 3.14-7, the addition of project (full buildout) traffic at **Intersection 13 (Grant Line Road and North MacArthur Drive)** would cause LOS levels to decrease from LOS E to LOS F in in the AM peak-hour period (from 66.7 to 96.4 second delay) and from LOS F (86.5 second delay) to a greater LOS F delay (99.4 second delay) in the PM peak-hour.

As shown in Table 3.14-7, the addition of project (full buildout) traffic at **Intersection 18 (Chrisman Road and South Paradise Road)** would not cause a decrease in LOS in the AM peak period (14.8 second delay [LOS B] with and without the proposed project) and would not cause a decrease in LOS in the PM peak period (57.0 second delay [LOS F] with and without the proposed project). This is because no project trips are expected to travel through this intersection during Background Plus Project Conditions, and the proposed project would not deteriorate the existing deficiency further.

Improvement Measure (IM)-1 is recommended at Intersection No. 11 and would include the following, which are part of City's Traffic Impact Fee (TIF) program:

- Each applicant for its individual development proposal within the project site shall implement the TMP improvements at this intersection to accommodate City traffic. It is not recommended to make improvements to accommodate cut-through traffic (i.e., an additional northbound right turn lane) because this will induce more cut-through traffic. The improvements are triggered by any of the first buildings on the site. The proposed project is responsible for implementation of these improvements, but the relevant applicant(s) shall be entitled to obtain fee credits/reimbursements pursuant to applicable laws and regulations consistent with the City's TIF program.
- The TMP improvements include lane additions at both ramp terminals and the addition of a second I-205 Westbound on-ramp. The two ramp terminals cannot be improved independently. The westbound ramp terminal would improve with the addition of these lanes.

IM-2 is recommended at Intersection No. 13 and would include the following:

- Westbound right-turn lane with right turn overlaps signal phase. This improvement is anticipated to be constructed by NEI Phase 3 and the applicants for the development of any of the proposed project parcels shall pay a fair share as described below.

As shown in Table 3.14-9 (showing delay with implementation of IM-1 and IM-2), Background Plus Project Conditions at Intersection 11 and Intersection 13, the deficient intersections would operate at either an acceptable LOS or better than base conditions with the installation of the identified improvements. Each applicant's pro rata fair share contribution via payment of the applicable TIF fee will contribute toward the City's ability to ultimately install these improvements (as contemplated in the City TMP) and shall constitute compliance with IM-1 and IM-2 for the relevant individual development proposal.

Table 3.14-8: Background Plus Project Conditions Intersection Level of Service (without Suivak Farms and Zuriakat Parcels)

#	Intersection	Maintaining Agency[1]	Control Type	Background Plus Project Conditions (Full Project)						Background Plus Project Conditions (Tracy Alliance Parcels Buildings Only)					
				AM Peak-hour			PM Peak-hour			AM Peak-hour			PM Peak-hour		
				MVMT	Delay	LOS	MVMT	Delay	LOS	MVMT	Delay	LOS	MVMT	Delay	LOS
11	I-205 EB Ramps and North MacArthur Drive	Caltrans	Signal	–	35.7	D	–	**65.5**	**E**	[redacted]			–	**59.8**	**E**
13	Grant Line Road and North MacArthur Drive	Tracy	Signal	–	**96.4**	**F**	–	**99.4**	**F**	–	**77.1**	**E**	–	**91.8**	**F**

Notes:
AWSC = All-Way Stop Control
EB = eastbound
LOS = Level of Service
MVMT = movement
Signal = Signal Control
SSSC = Side-Street Stop Control

[1] LOS thresholds for Caltrans are taken from the December 2002 Guide for the Preparation of Traffic Impact Studies. As of May 20, 2020, Caltrans has updated their guidelines (Vehicle Miles Traveled–Focused Transportation Impact Study Guidelines); however, no LOS thresholds are stated.
- Analysis performed using HCM 6th Edition methodologies.
- Delay indicated in seconds/vehicle.
- Tracy LOS standard is D unless the intersection is within 0.25 mile of the freeway.
- Intersections that operate below maintaining agency's LOS standard are highlighted and shown in **bold.**
- Intersection 18 is failing in Table 3.14-7. The proposed project does not send any traffic to this intersection in Background Plus Project Conditions and does not have to make any improvements.
Source: Kimley-Horn. 2021. Tracy Alliance and Northeast Area Annexation Transportation Impact Analysis (prepared for the City of Tracy).

Table 3.14-9: Recommended Improvements for Background Plus Project Conditions Intersection Level of Service

#	Intersection	Maintaining Agency[1]	Control Type	Background Plus Project Conditions				Improved Background Plus Project Conditions				Proposed Improvement
				AM Peak-hour		PM Peak-hour		AM Peak-hour		PM Peak-hour		
				Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	
11	I-205 EB Ramps and North MacArthur Drive	Caltrans	Signal			**59.8**	**E**			**58.9**	**E**	Implement TMP geometry
13	Grant Line Road and North MacArthur Drive	Tracy	Signal	**77.1**	**E**	**91.8**	**F**	37.4	D	**58.7**	**E**	WB right turn lane with overlap signal phase

Notes:
AWSC = All-Way Stop Control
EB = eastbound
LOS = Level of Service
Signal = Signal Control

[1] LOS thresholds for Caltrans are taken from the December 2002 Guide for the Preparation of Traffic Impact Studies. As of May 20, 2020, Caltrans has updated their guidelines (Vehicle Miles Traveled–Focused Transportation Impact Study Guidelines); however, no LOS thresholds are stated.

- Analysis performed using HCM 6th Edition methodologies.
- Delay indicated in seconds/vehicle.
- Tracy LOS standard is D unless the intersection is within 0.25 mile of the freeway.
- Intersections that operate below maintaining agency's LOS standard are highlighted and shown in **bold.**
- Intersection 13 is still deficient; however, this deficiency is no longer a deficiency associated with the proposed project.
- Intersection 18 is failing in Table 3.14-7. The proposed project does not send any traffic to this intersection in Background Plus Project Conditions and therefore shall not be required to make any improvements.

Source: Kimley-Horn. 2021. Tracy Alliance and Northeast Area Annexation Transportation Impact Analysis (prepared for the City of Tracy).

Identified Improvement Measures

IM-1 I-205 EB Ramps and North MacArthur Drive (Intersection 11) Improvements

Prior to issuance of the building permits for each individual development proposal, the City of Tracy Planning Department shall verify that the relevant applicant has paid the applicable TIF fee for the relevant individual development proposal. In so doing, this payment will constitute a pro rata fair share contribution toward the City's ability to implement its TMP, which includes the following improvements:

- Lane additions at both ramp terminals and the addition of a second I-205 Westbound on-ramp. The two ramp terminals cannot be improved independently. The westbound ramp terminal would improve with the addition of these lanes.

IM-2 Grant Line Road and North MacArthur Drive (Intersection 13) Improvements

- Prior to issuance of the building permits for each individual development proposal, the City of Tracy Planning Department shall verify that the relevant applicant has paid its pro rata fair share of the proposed project's fair share of 5.93 percent of the following improvement: the construction of a westbound right turn lane for Intersection 13 (which will include a right-turn overlap signal phase).

Cumulative Plus Project Conditions

As documented in the TMP and the NEI Specific Plan, there are significant vehicular capacity improvements planned in the study area by the year 2035. The following list provides the improvements that are anticipated to occur within the study area by 2035:

- Chrisman Road Extension
  - North of Grand Line Road
  - Between Grant Line and 11th Street
- Signalization at the intersection of Future Chrisman Road and Paradise Road
- Future interchange at I-205 and Paradise Road/Chrisman Road
- Widening improvements at the I-205 and MacArthur Drive interchange
- Construction of the Golden Valley Parkway (Exhibit 3.14-2)

The interchange geometry was determined using the Final Traffic Operations Analysis Report (TOAR) published by Fehr and Peers. Volumes were developed using the TMP 2035 model.

Cumulative volume growth in the study area was determined based on an evaluation of the City's Travel Demand model forecasts. Year 2035 turning movements were extrapolated from the TMP 2035 Horizon Year turning movements figures. For intersections without 2035 data, volumes were estimated using the intersection turning movements volumes provided in the TMP. Adjustments to the 2035 Horizon Year turning movement figures were made for the new NEI Phase 3 project proposed along Grant Line Road. Cumulative Conditions intersection geometry and traffic control is shown in Exhibit 3.14-17, and Cumulative Conditions peak-hour traffic volumes are shown in Exhibit

3.14-18. It is assumed that signal timing changes will be implemented prior to 2035 to service traffic pattern changes and increases.

Cumulative Plus Project Conditions intersection geometry and traffic control is shown in Exhibit 3.14-19, and Cumulative Plus Project Conditions peak-hour traffic volumes are shown in Exhibit 3.14-20. Table 3.14-10 shows Cumulative Conditions and Cumulative Plus Project Conditions intersection LOS. Cumulative Plus Project and Cumulative Plus Project Synchro output sheets are provided in Appendix J.

Table 3.14-10: Cumulative Plus Project Conditions Intersection Level of Service

No.	Intersection	Maintaining Agency[1]	Control Type	Cumulative Conditions						Cumulative Plus Project Conditions					
				AM Peak-hour			PM Peak-hour			AM Peak-hour			PM Peak-hour		
				MVMT	Delay	LOS	MVMT	Delay	LOS	MVMT	Delay	LOS	MVMT	Delay	LOS
1	Grant Line Road and Best Buy Driveway/Project Driveway 1	Tracy	Signal	–	4.0	A	–	7.8	A	–	15.9	B	–	21.8	C
2	Grant Line Road and Chabot Court/Project Driveway 2	Tracy	SSSC	–	0.2	A	–	0.2	A	–	0.2	A	–	0.2	A
	Worst Approach			*NB*	*9.6*	*A*	*NB*	*13.1*	*B*	*SB*	*10.7*	*B*	*NB*	*13.7*	*B*
3	Grant Line Road and North Paradise Road	Tracy	Signal	–	23.5	C	–	27.0	C	–	27.0	C	–	30.9	C
4	Paradise Road and Ryder Driveway/Project Driveway 3	Tracy	SSSC	–	1.0	A	–	1.5	A	–	0.9	A	–	1.4	A
	Worst Approach			*EB*	*11.4*	*B*	*EB*	*10.7*	*B*	*EB*	*14.3*	*B*	*WB*	*13.6*	*B*
5	Paradise Road and Ryder Driveway/Project Driveway 4	Tracy	SSSC/ Signal	–	0.9	A	–	1.5	A	–	10.1	B	–	11.4	B
	Worst Approach			*EB*	*11.4*	*B*	*EB*	*10.1*	*B*						
6	Paradise Road and Project Driveway 5	Tracy	SSSC	Intersection Does Not Exist						–	0.2	A	–	0.2	A
	Worst Approach									*WB*	*13.6*	*B*	*WB*	*13.4*	*B*
7	Chrisman Road and North Paradise Road	Tracy	AWSC	–	8.4	A	–	10.9	B	–	10.6	B	–	15.2	B
8	Chrisman Road and Pescadero Avenue	Tracy	Signal	–	15.4	B	–	45.3	D	–	15.4	B	–	45.3	D
9	Grant Line Road and Chrisman Road	Tracy	Signal	–	22.9	C	–	46.7	D	–	23.3	C	**–**	**57.1**	**E**
10	I-205 WB Ramps and North MacArthur Drive	Caltrans	Signal	–	12.2	B	–	20.3	C	–	12.2	B	–	20.3	C
11	I-205 EB Ramps and North MacArthur Drive	Caltrans	Signal	–	22.2	C	–	23.2	C	–	22.2	C	–	23.2	C

No.	Intersection	Maintaining Agency[1]	Control Type	Cumulative Conditions						Cumulative Plus Project Conditions					
				AM Peak-hour			PM Peak-hour			AM Peak-hour			PM Peak-hour		
				MVMT	Delay	LOS	MVMT	Delay	LOS	MVMT	Delay	LOS	MVMT	Delay	LOS
12	Pescadero Avenue and North MacArthur Drive	Tracy	Signal	–	18.6	C	–	27.2	C	–	18.6	B	–	27.2	C
13	Grant Line Road and North MacArthur Drive	Tracy	Signal	–	**55.5**	**E**	–	**57.2**	**E**	–	**55.6**	**E**	–	**57.5**	**E**
14	11th Street and North MacArthur Drive	Tracy	Signal	–	29.8	C	–	46.1	D	–	31.3	C	–	49.2	D
15	11th Street and Chrisman Road	Tracy	Signal	–	52.8	D	–	**59.3**	**E**	–	**56.5**	**E**	–	**60.9**	**E**
16	I-205 WB Ramps and Chrisman Road	Tracy	Signal	–	5.9	A	–	3.8	A	–	6.2	A	–	4.0	A
17	I-205 EB Ramps and Chrisman Road	Tracy	Signal	–	10.3	B	–	28.6	C	–	19.4	B	–	29.8	C
18	Chrisman Road and South Paradise Road	Tracy	Signal	-	14.2	B	-	15.0	B	-	13.9	B	-	14.5	B

Notes:
AWSC = All-Way Stop Control
EB = eastbound
LOS = Level of Service
MVMT = movement
Signal = Signal Control
WB = westbound

[1] LOS thresholds for Caltrans are taken from the December 2002 Guide for the Preparation of Traffic Impact Studies. As of May 20, 2020, Caltrans has updated their guidelines (Vehicle Miles Traveled–Focused Transportation Impact Study Guidelines); however, no LOS thresholds are stated.
- Analysis performed using HCM 6th Edition methodologies.
- Delay indicated in seconds/vehicle.
- Tracy LOS standard is D.
- Intersections that operate below maintaining agency's LOS standard are highlighted and shown in **bold.**
Source: Kimley-Horn. 2021. Tracy Alliance and Northeast Area Annexation Transportation Impact Analysis (prepared for the City of Tracy).

As shown in Table 3.14-10, the addition of project (at full buildout) traffic would worsen intersection delay at the following intersections under Cumulative Plus Project Conditions:

- Intersection 9 (Grant Line Road and Chrisman Road)
- Intersection 13 (Grant Line Road and North MacArthur Drive)
- Intersection 15 (11th Street and Chrisman Road)

At **Intersection 9**, the proposed project would increase traffic delay in the AM peak-hour but LOS would still be at acceptable levels. However, in the PM peak-hour project-generated traffic would increase delay from LOS D (46.7 second delay) to LOS E (57.1 second delay). It is recommended that the proposed project optimize the signal cycle length at this intersection, which is reflected in IM-3.

As shown in Table 3.14-10, **Intersection 13** would operate at LOS E in both the AM and PM peak-hour without project traffic under Cumulative Conditions. The addition of project (at full buildout) traffic would increase traffic delay from a 55.5 second delay, LOS E, to a 55.6 second delay, LOS E; and 57.2 second delay, LOS E, to 57.5, LOS E, in the AM and PM peak-hours, respectively. It is recommended that the proposed project optimize the signal cycle length at this intersection, which is reflected in IM-3.

At **Intersection 15**, the proposed project would increase traffic delay in both the AM and PM peak-hours under Cumulative Plus Project Conditions. In the AM peak-hour, the proposed project would increase traffic delay from a 52.8 second delay, LOS D, to a 56.5 second delay, LOS E. In the PM peak-hour, the proposed project would increase delay from 59.3, LOS E, to 60.9, LOS E. It is recommended that the proposed project provide an additional second westbound left-turn lane and the signal timing to be modified to allow lagging phase for the eastbound left turn and northbound left turn, which is reflected in IM-4.

Intersection 18 is planned to have signal control once signal warrants are met, and the proposed project would pay its fair share costs toward installation of the signal, consistent with other project standard conditions of approval in the vicinity of the intersection. Project traffic is anticipated to travel through the intersection once Chrisman Road is a through route south to 11th Street. The analysis shows that reported delay at Intersection 18 would be slightly improved with the addition of project trips on non-critical movements. This is because the trips were added to the through lane movements, which had a lower movement delay than the average intersection delay, which thereby decreases the overall average delay.

As shown in Table 3.14-11 (showing delay with implementation of IM-3 and IM-4), Cumulative Project Conditions at intersection 9, Intersection 13, and Intersection 15, the deficient intersections, would operate at either an acceptable LOS or better than base conditions.

Table 3.14-11: Improved Cumulative Plus Project Conditions Intersection Level of Service

No.	Intersection	Maintaining Agency[1]	Control Type	Cumulative Plus Project Conditions				Improved Cumulative Plus Project Conditions				Proposed Improvement
				AM Peak-hour		PM Peak-hour		AM Peak-hour		PM Peak-hour		
				Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	
9	Grant Line Road and Chrisman Road	Tracy	Signal			**57.1**	**E**			49.0	D	Optimize Cycle Length
13	Grant Line Road and North MacArthur Drive	Tracy	Signal	**55.6**	**E**	**57.5**	**E**	30.7	C	48.0	D	Optimize Cycle Length
15	11th Street and Chrisman Road	Tracy	Signal	**56.5**	**E**	**60.9**	**E**	41.1	D	50.7	D	Provide an additional westbound left-turn lane

Notes:LOS = Level of Service
Signal = Signal Control

[1] LOS thresholds for Caltrans are taken from the December 2002 Guide for the Preparation of Traffic Impact Studies. As of May 20, 2020, Caltrans has updated their guidelines (Vehicle Miles Traveled–Focused Transportation Impact Study Guidelines); however, no LOS thresholds are stated.
- Analysis performed using HCM 6th Edition methodologies.
- Delay indicated in seconds/vehicle.
- Tracy LOS standard is D; Caltrans LOS standard is C/D.
Intersections that operate below maintaining agency's LOS standard are highlighted and shown in **bold.**
Source: Kimley-Horn. 2021. Tracy Alliance and Northeast Area Annexation Transportation Impact Analysis (prepared for the City of Tracy).

Identified Improvement Measures

IM-3 Optimize Signal Cycle Length at Grant Line Road and Chrisman Road (Intersection 9) and Grant Line Road and North MacArthur Drive (Intersection 13)

Prior to issuance of the building permits for the first individual development proposal, the City of Tracy Planning Department shall verify that the signal cycle length has been optimized at the intersections of:

- Grant Line and Chrisman Road
- Grant Line Road and North MacArthur Drive

IM-4 Chrisman Road and 11th Street (Intersection 15) Improvements

- Prior to issuance of the building permits for each individual development proposal, the City of Tracy Planning Department shall verify that the relevant applicant has paid its pro rata fair share of the proposed project's fair share of 5.35 percent for the following improvement: an additional second westbound left-turn lane for Intersection 15 (which will involve the signal at this Intersection being modified to allow lagging phase for the eastbound left turn and northbound left turn).

Fair Share Analysis

According to Appendix B of the Caltrans Guide for the Preparation of Traffic Impact Studies,[22] fair share is calculated when:

- A project has impacts that do not immediately warrant mitigation, but their cumulative effects are significant and will require mitigating in the future.
- A project has an immediate impact, and the lead agency has assumed responsibility for addressing operational improvements.

The proposed project shall also pay a total fair share of 17.02 percent toward the installation of a signal at Chrisman Road/Paradise Road; to that end, each applicant for its individual development proposal shall pay its pro rata fair share contribution of the proposed project's total fair share due (17.02 percent) in connection with the relevant individual development proposal.

3.14.6 - Cumulative Impacts

Vehicle Miles Traveled

Transportation impact analysis is inherently cumulative because it is important to analyze a project's impact within the context of existing and future traffic conditions to which all projects contribute and, where appropriate, provide mitigation measures to reduce a project's contribution to any cumulative significant impacts identified to the degree feasible. Cumulative impacts associated transportation are analyzed throughout this section. Cumulative projects would be required to

[22] California Department of Transportation (Caltrans). 2002. Guide for the Preparation of Traffic Studies. December. Website: https://nacto.org/docs/usdg/guide_preparation_traffic_impact_studies_caltrans.pdf. Accessed February 9, 2021.

comply with applicable State and local laws and regulations. If found to result in significant VMT impacts, the cumulative projects would be required to implement feasible TDM measures that would reduce VMT and encourage alternative modes of transportation, such as transit, bicycle use, and walking. The provision of transit, bicycle, and pedestrian facilities would depend on the nature of the cumulative project at issue and its location. Cumulative projects would also be required to include facilities based on future transportation studies prepared for that project and to pay into the City's VMT banking program once established. However, even with implementation of all available feasible mitigation, the cumulative VMT would still exceed City standards and would be significant and unavoidable.

In addition, as described in Impact TRANS-1, the proposed project's contribution to this significant cumulative impact would be cumulatively considerable even with the implmentation of the mitigation required by MM TRANS-1(a) and MM TRANS-1(b). As such, the proposed project, in conjunction with other cumulative projects, would have a significant and unavoidable impact with respect to VMT, and, as described above, the proposed project's contribution would be cumulatively considerable.

Roadway Safety and Emergency Access

Trucks used during the construction of cumulative projects, including those listed in Table 3-1, Chapter 3, Environmental Impact Analysis, would be required to utilize truck routes designated by the City and therefore would not conflict with the automobile traffic and bicycle and pedestrian activity along public streets. In addition, the relevant local jurisdictions' engineering and planning departments would review project plans prior to construction permits in order to determine whether any construction traffic control plans would be required and would require the implementation of same, as necessary.

If any cumulative projects, including those listed in Table 3-1, Chapter 3, Environmental Impact Analysis, would redesign City streets in such a way that would significantly impact roadway safety, they would be required by the City to mitigate such impacts as feasible. Roadways constructed as part of the cumulative projects would be constructed to meet then-current applicable City and California Fire Code design standards. Cumulative project driveways and access points would be constructed in compliance with applicable provisions of the California Fire Code and other applicable regulations related to roadway safety and emergency access. As such, cumulative roadway safety and emergency access impacts in the City and the unincorporated community of Banta would be less than significant. Further, as described more fully above, the proposed project, in conjunction with other cumulative projects listed in Table 3-1, Chapter 3, Environmental Impact Analysis, would not make a cumulatively considerable contribution to this less than significant cumulative impact associated with roadway safety or emergency access.

Transit, Bicycle, and Pedestrian Circulation and Facilities

With respect to transit facilities, should construction or operation of the cumulative projects temporarily or permanently conflict with existing transit connections, each project sponsor for the relevant cumulative project(s) would be required to coordinate with the City and the transit providers to provide alternative transit access.

With respect to pedestrian and bicycle facilities, Cumulative Project 35, I-205 and Chrisman Road Interchange, is the only reasonably foreseeable future project that shares a street with the proposed project. Paradise Road would be realigned with the construction of the I-205 and Chrisman Road Interchange. There are no bicycle or pedestrian facilities provided on Paradise Road along the proposed project frontage or I-205. Therefore, cumulative impacts would be less than significant.

As part of the proposed project's frontage improvements, it is anticipated that the proposed project would construct a Class I path (that would accommodate both pedestrians and bicycles) per the TMP for both Grant Line Road and Paradise Road that would improve pedestrian and bicycle infrastructure. Neither the proposed project nor the I-205 and Chrisman Road Interchange project would remove existing bicycle or pedestrian infrastructure, nor would either make a cumulatively considerable contribution to this less than significant cumulative impact. Therefore, cumulative impacts related to the circulation system in terms of transit, bicycle, and pedestrian facilities would be less than significant.

Level of Cumulative Significance Before Mitigation

Significant and Unavoidable (Vehicle Miles Traveled)

Less Than Significant (Roadway Safety and Emergency Access)

Less Than Significant (Transit, Bicycle, and Pedestrian Circulation and Facilities)

Mitigation Measures

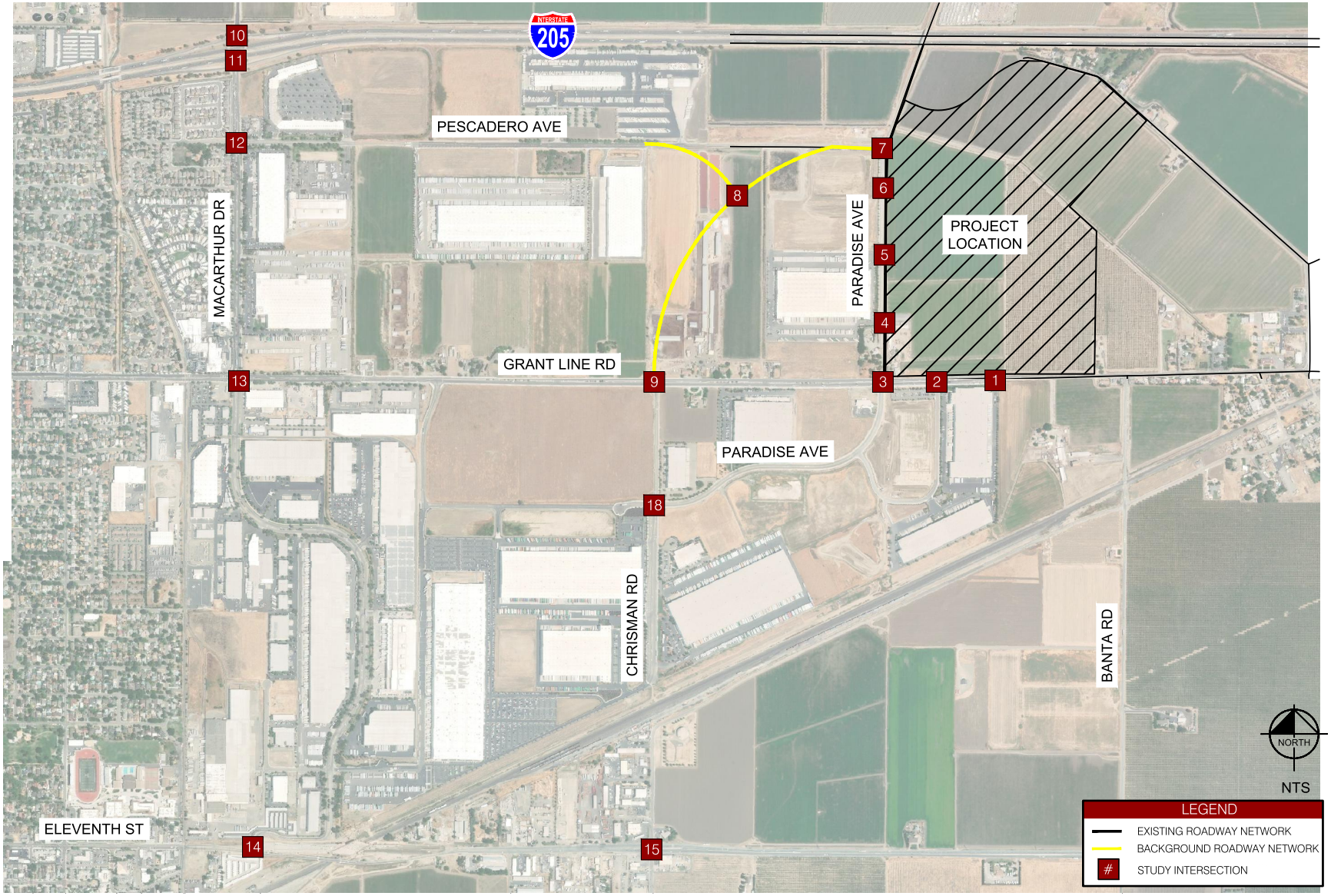
Implement MM TRANS-1(a) and MM TRANS-1(b)

Level of Cumulative Significance After Mitigation

Significant and Unavoidable (Vehicle Miles Traveled)

Less Than Significant (Roadway Safety and Emergency Access)

Less Than Significant (Transit, Bicycle, and Pedestrian Circulation and Facilities)

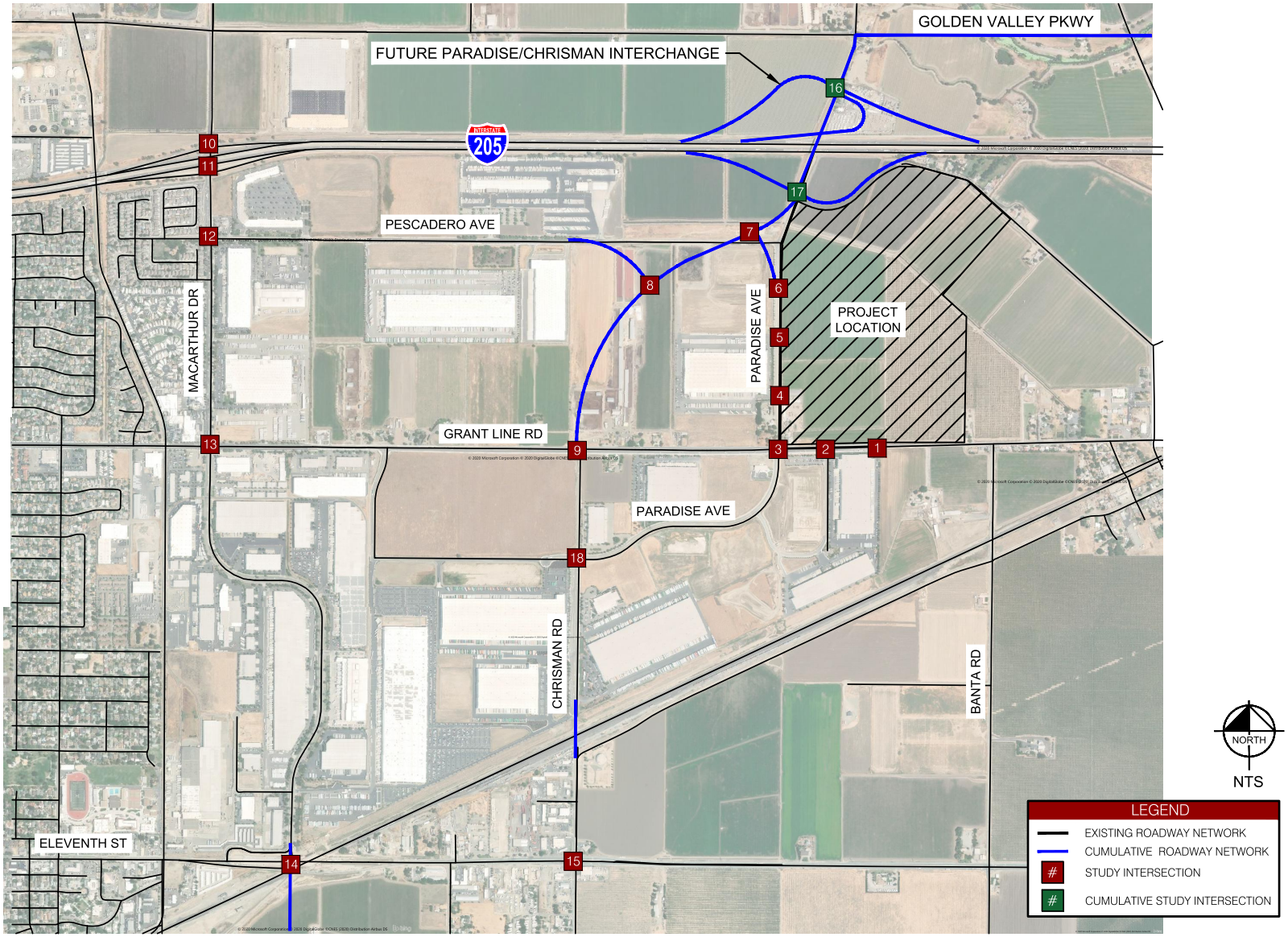


Source: Kimley-Horn and Associates, Inc., February 2021.

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Exhibit 3.14-1
Background Conditions Study Area and Intersections

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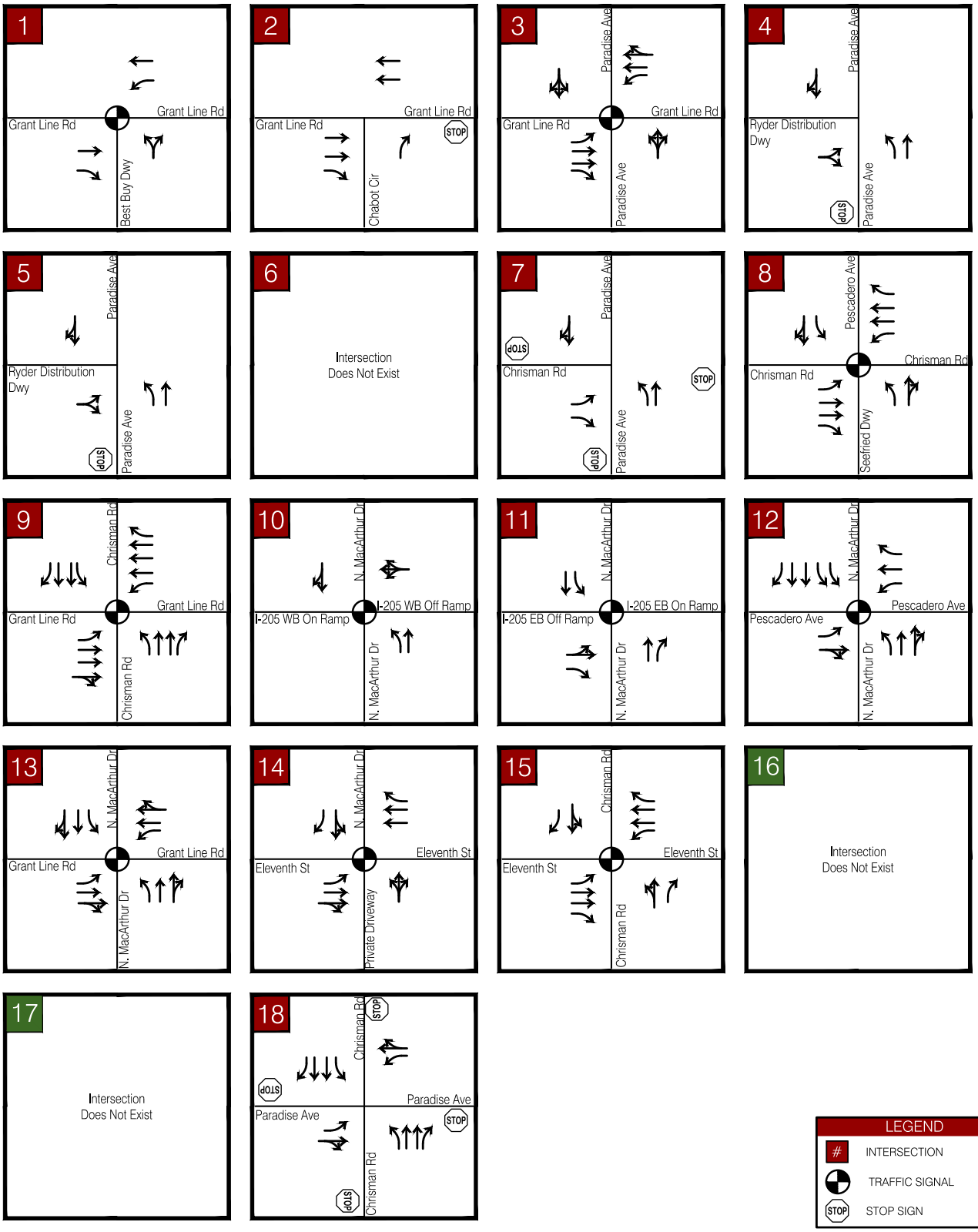


Source: Kimley-Horn and Associates, Inc., February 2021.

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Exhibit 3.14-2
Cumulative Conditions Study Area and Intersections

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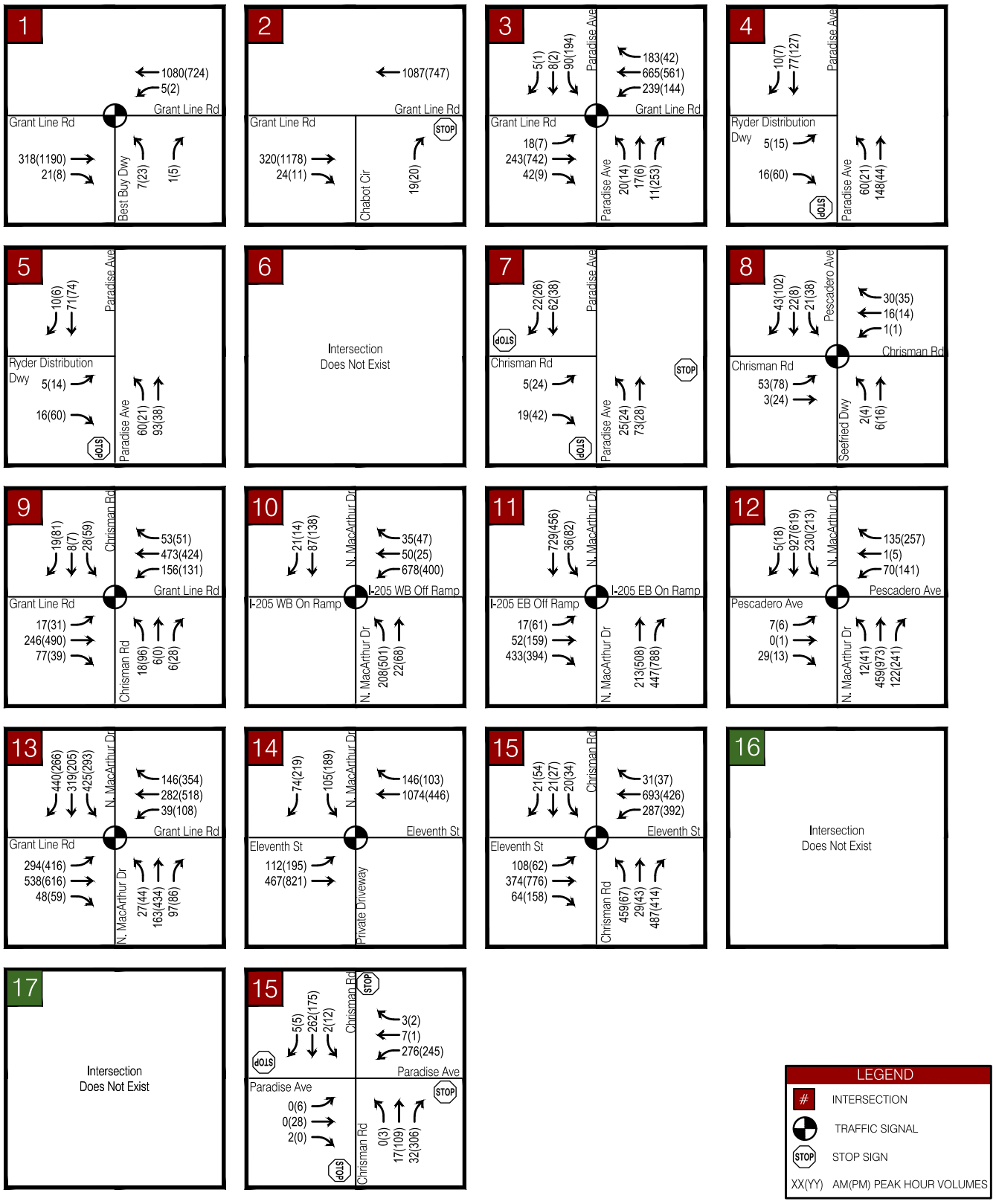


Source: Kimley-Horn and Associates, Inc., February 2021.

Exhibit 3.14-3
Background Conditions
Traffic Control and Geometry

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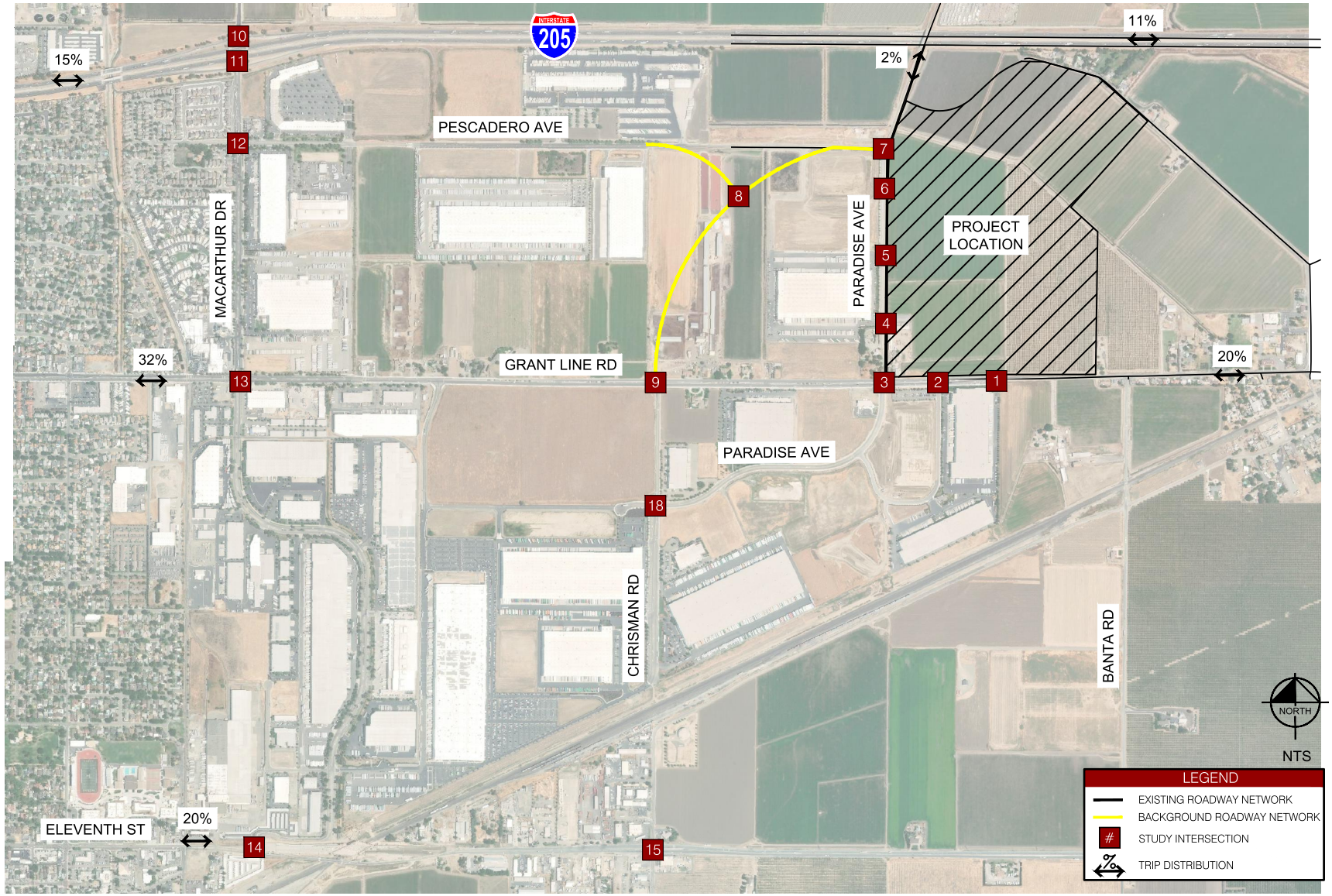


Source: Kimley-Horn and Associates, Inc., February 2021.

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Exhibit 3.14-4
Background Conditions
Peak Hour Traffic Volumes

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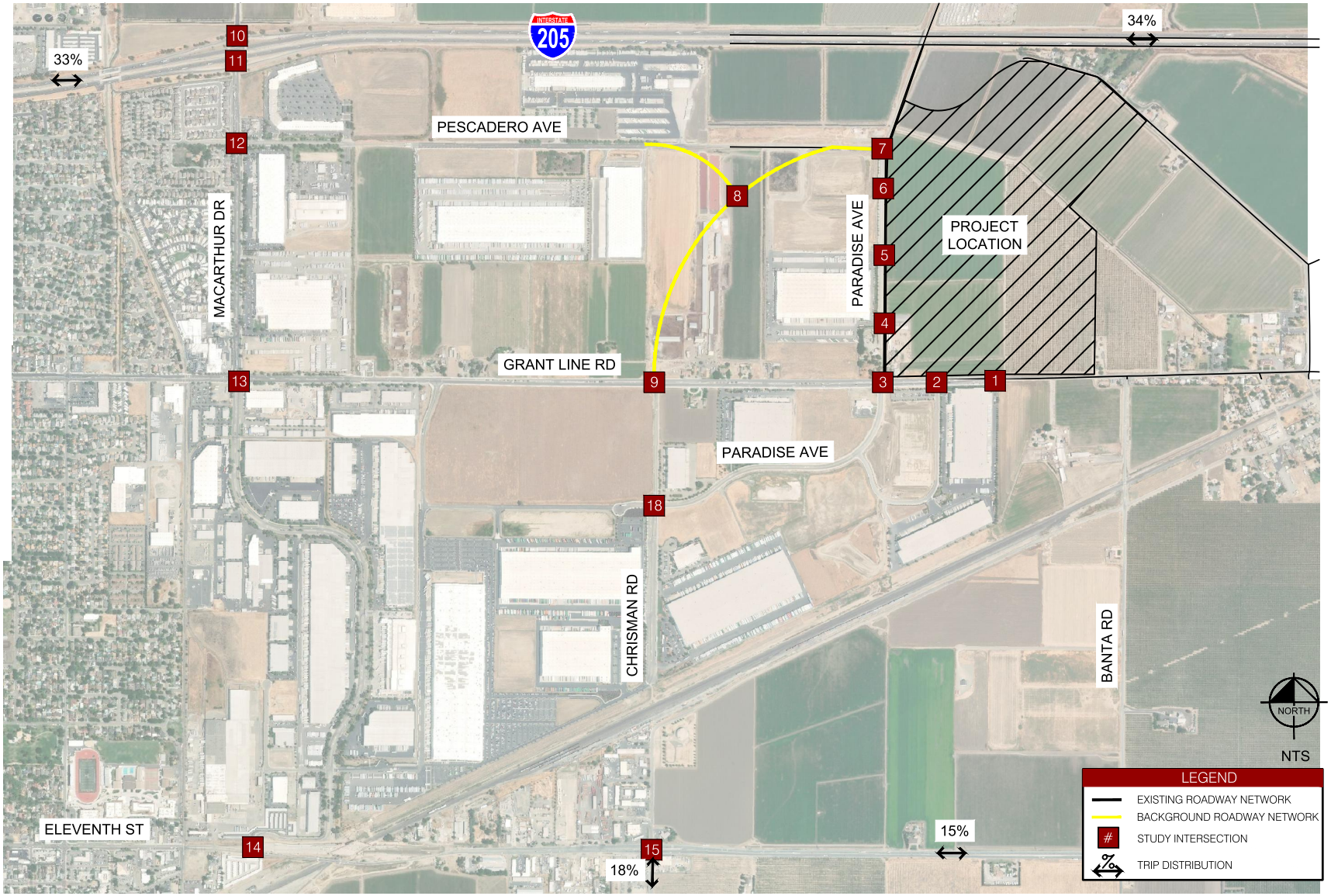


Source: Kimley-Horn and Associates, Inc., February 2021.

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Exhibit 3.14-5
Background Plus Project Conditions Passenger Car Trip Distribution

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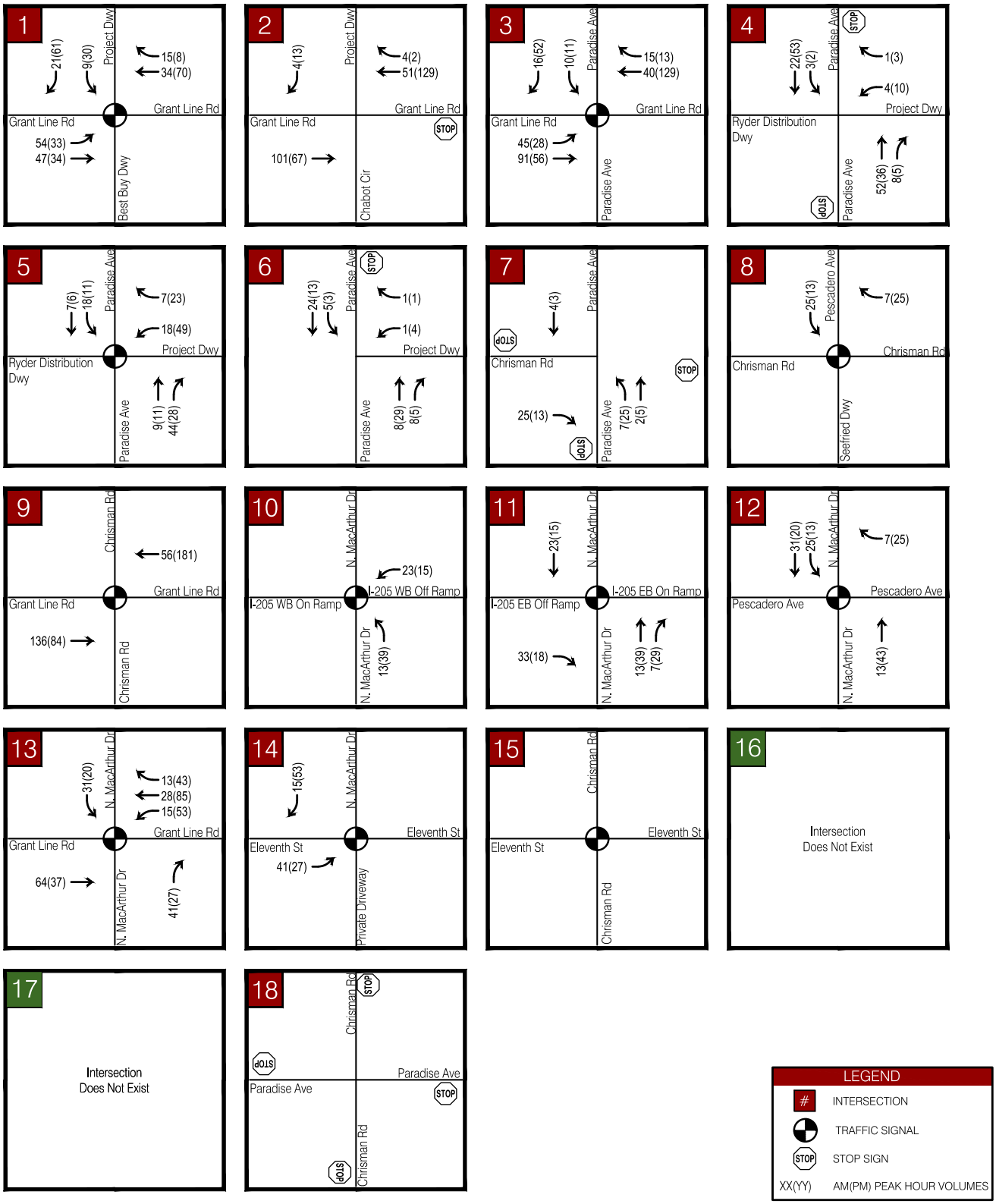


Source: Kimley-Horn and Associates, Inc., February 2021.

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Exhibit 3.14-6
Background Plus Project Conditions Truck Trip Distribution

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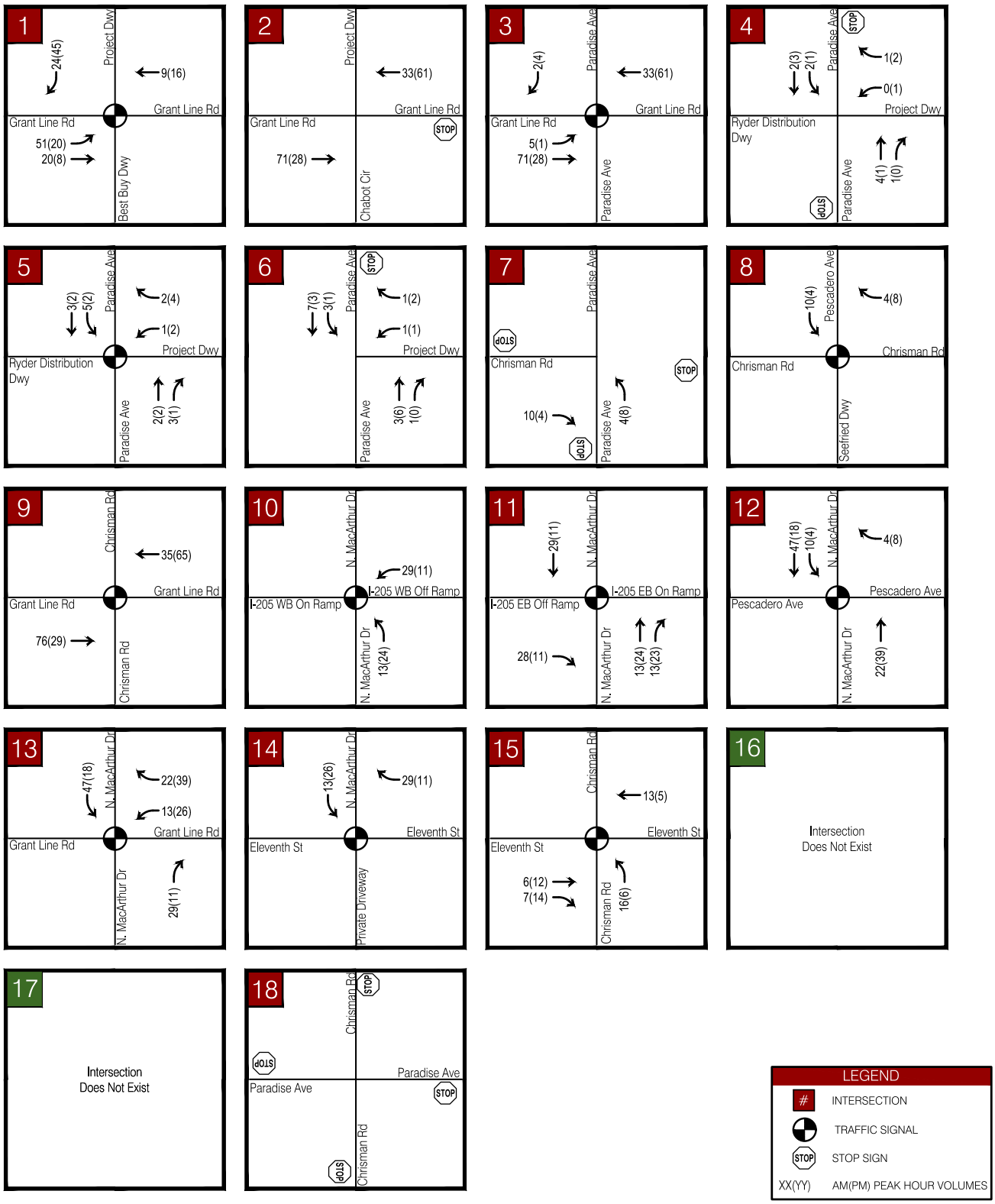


Source: Kimley-Horn and Associates, Inc., February 2021.

Exhibit 3.14-7
Background Plus Project Conditions Passenger Car Trip Assignment

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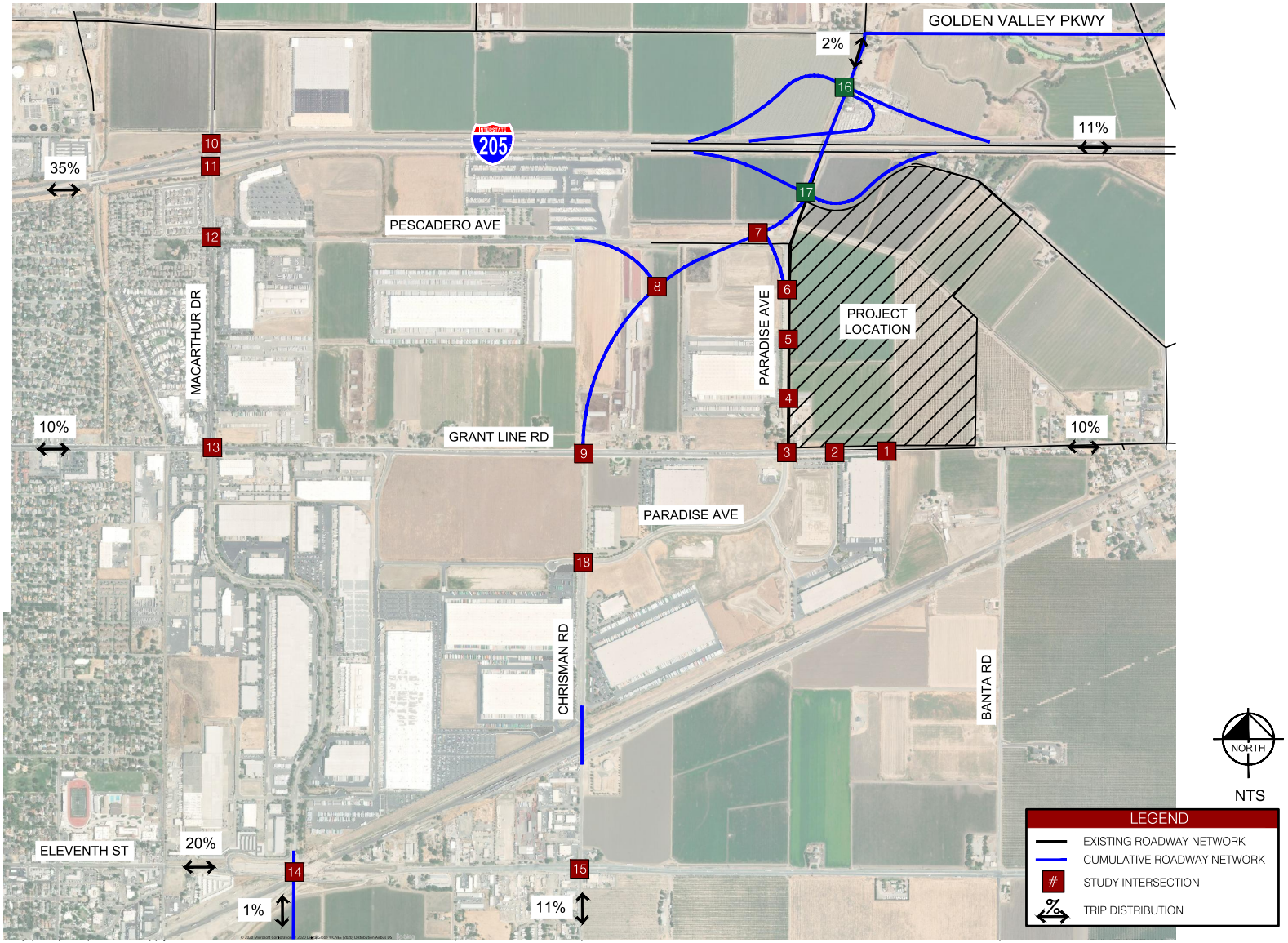


Source: Kimley-Horn and Associates, Inc., February 2021.

Exhibit 3.14-8
Background Plus Project Conditions Truck Trip Assignment

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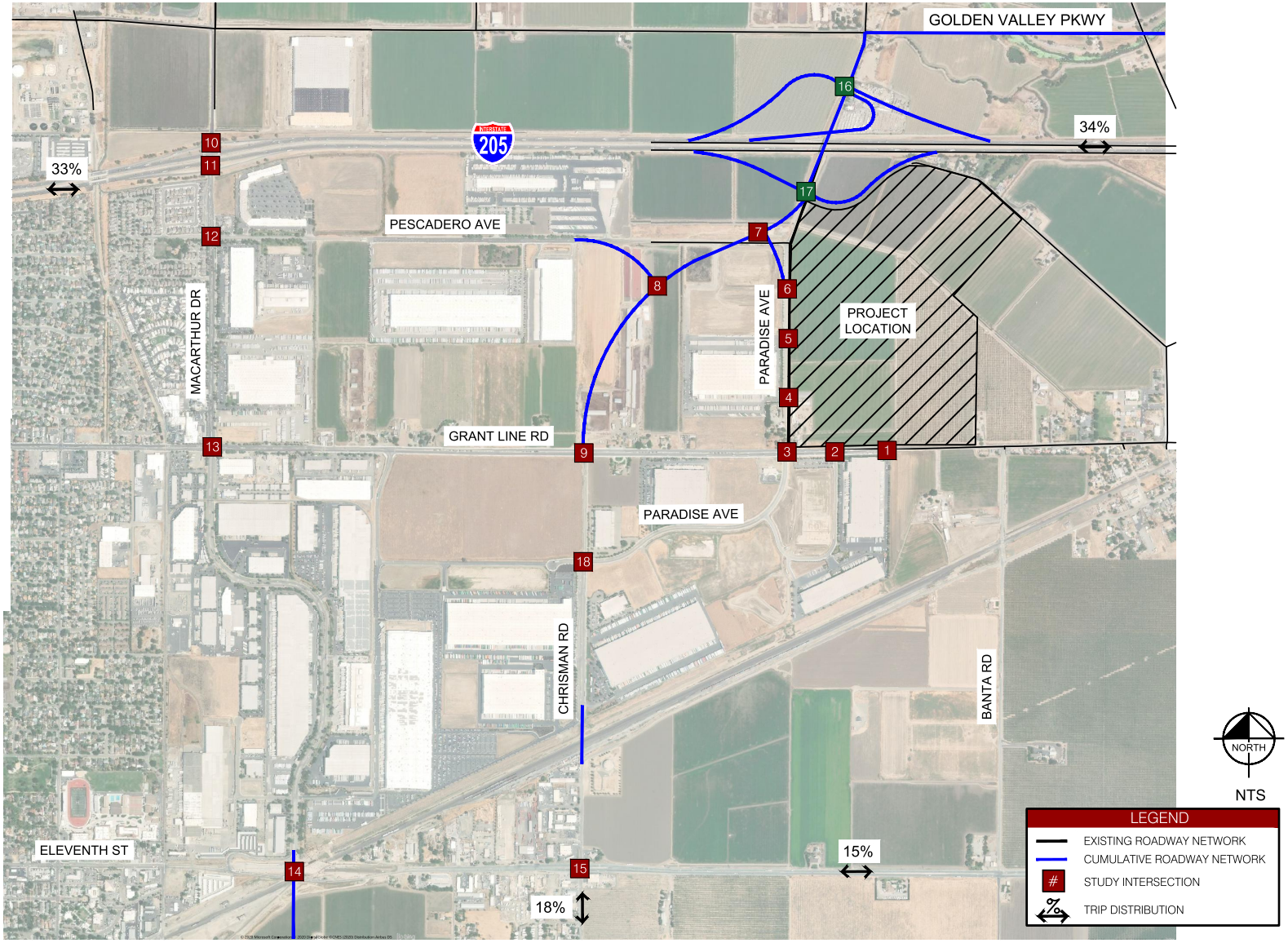


Source: Kimley-Horn and Associates, Inc., February 2021.

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Exhibit 3.14-9
Cumulative Plus Project Conditions Passenger Car Trip Distribution

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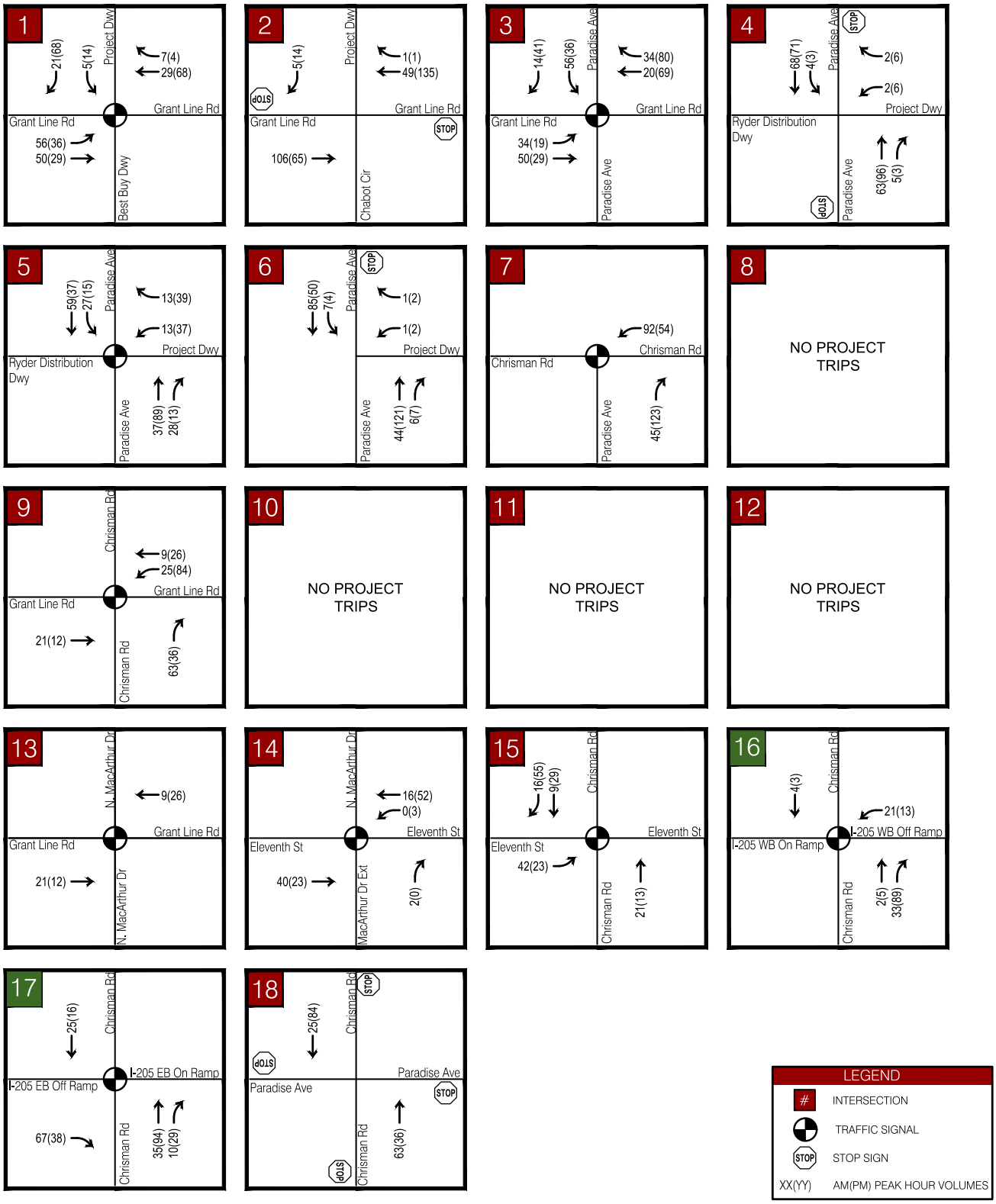


Source: Kimley-Horn and Associates, Inc., February 2021.

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Exhibit 3.14-10
Cumulative Plus Project Conditions Truck Trip Distribution

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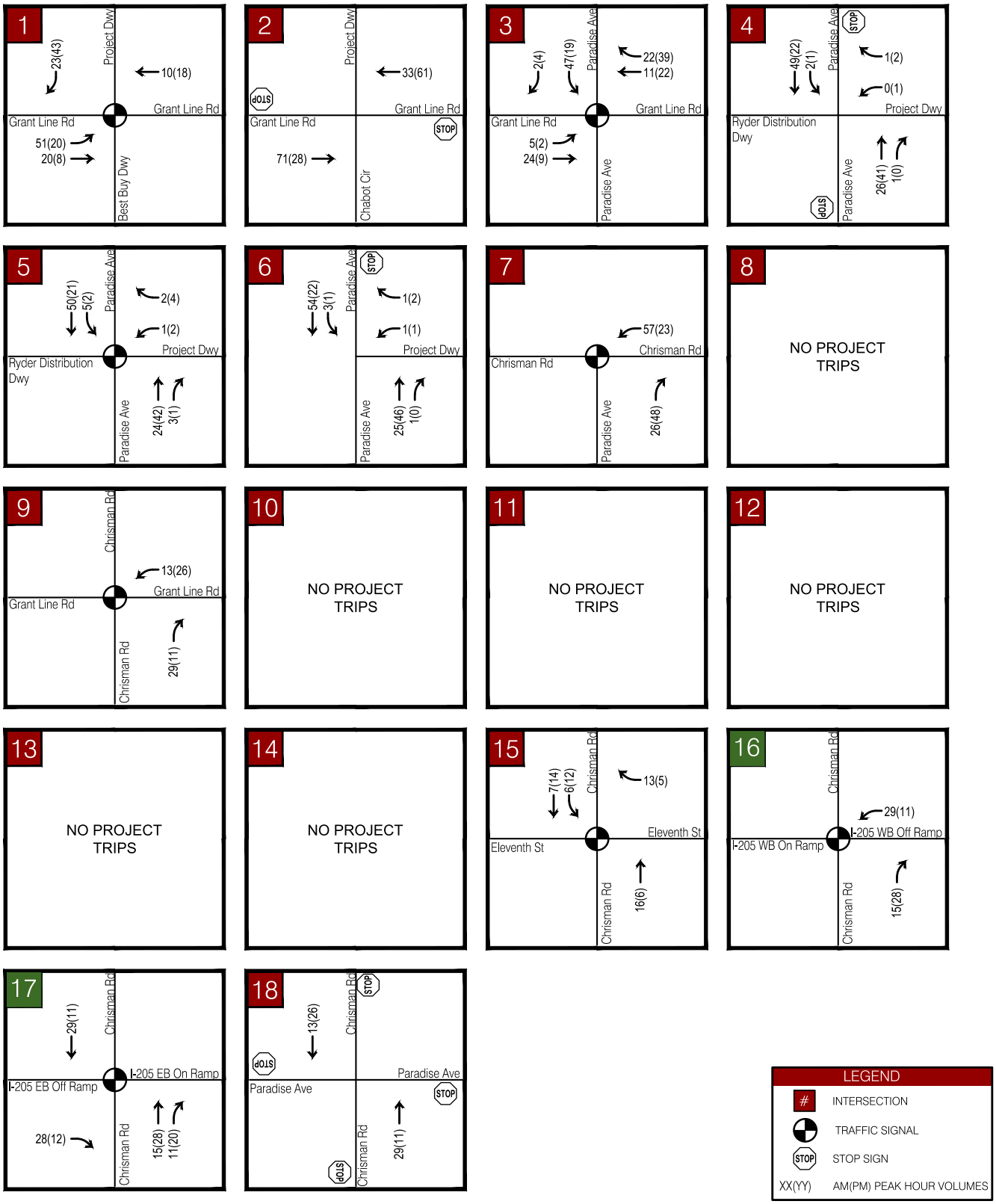


Source: Kimley-Horn and Associates, Inc., February 2021.

Exhibit 3.14-11
Cumulative Plus Project Conditions Passenger Car Trip Assignment

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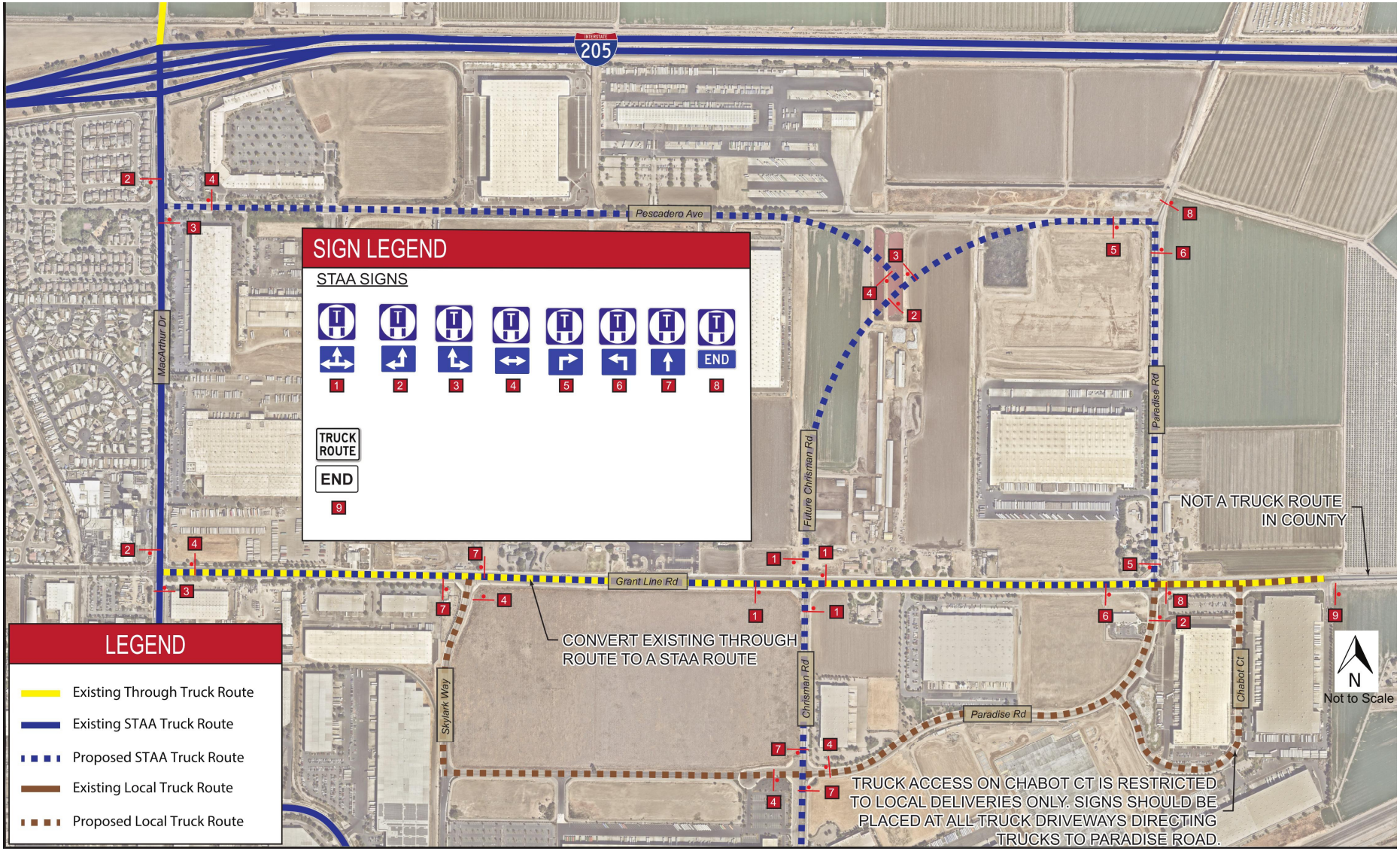


Source: Kimley-Horn and Associates, Inc., February 2021.

Exhibit 3.14-12
Cumulative Plus Project Conditions Truck Trip Assignment

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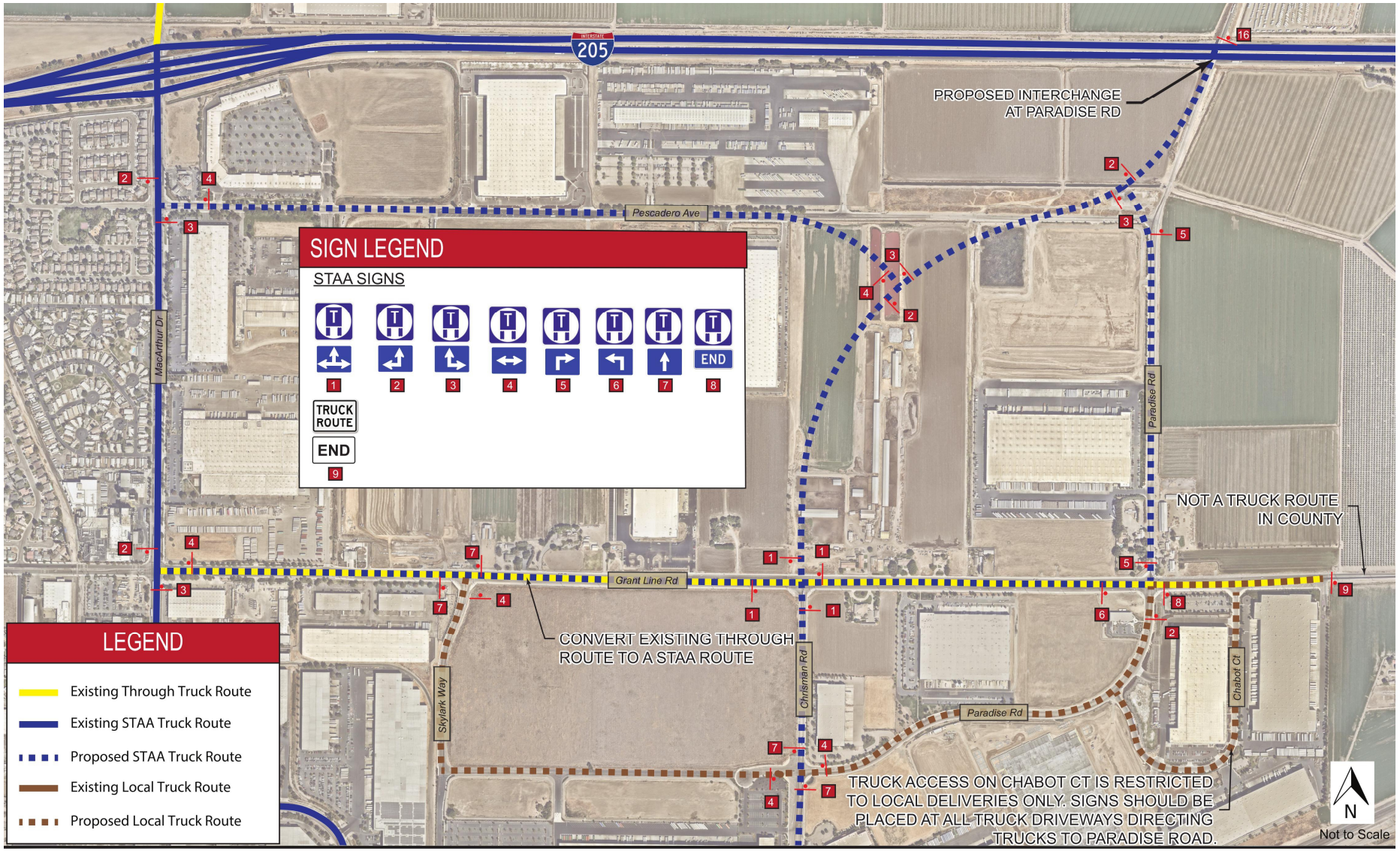


Source: Kimley-Horn and Associates, Inc., February 2021.

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Exhibit 3.14-13
Interim NEI Truck Route Map

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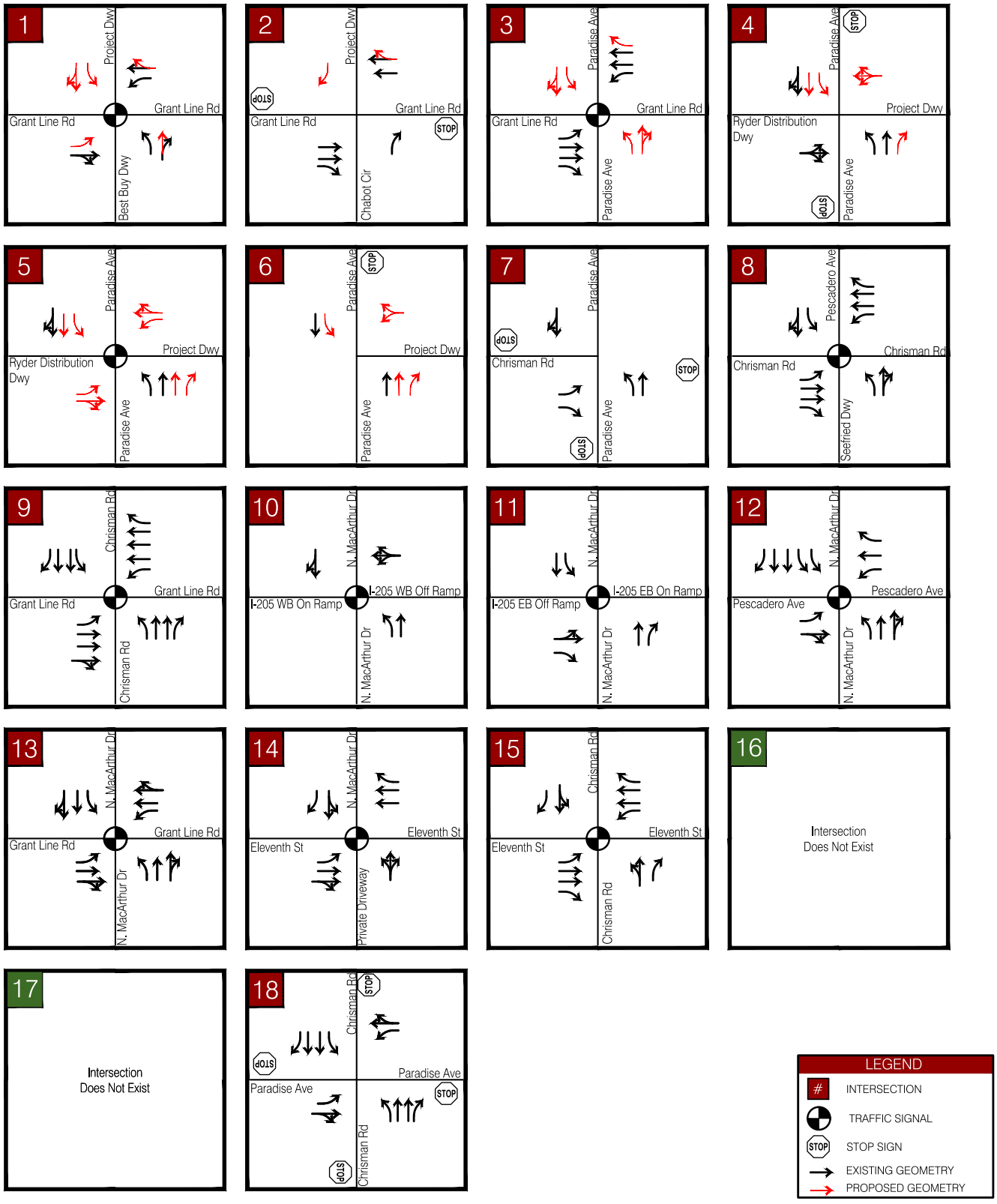


Source: Kimley-Horn and Associates, Inc., February 2021.

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Exhibit 3.14-14
Ultimate NEI Truck Route Map

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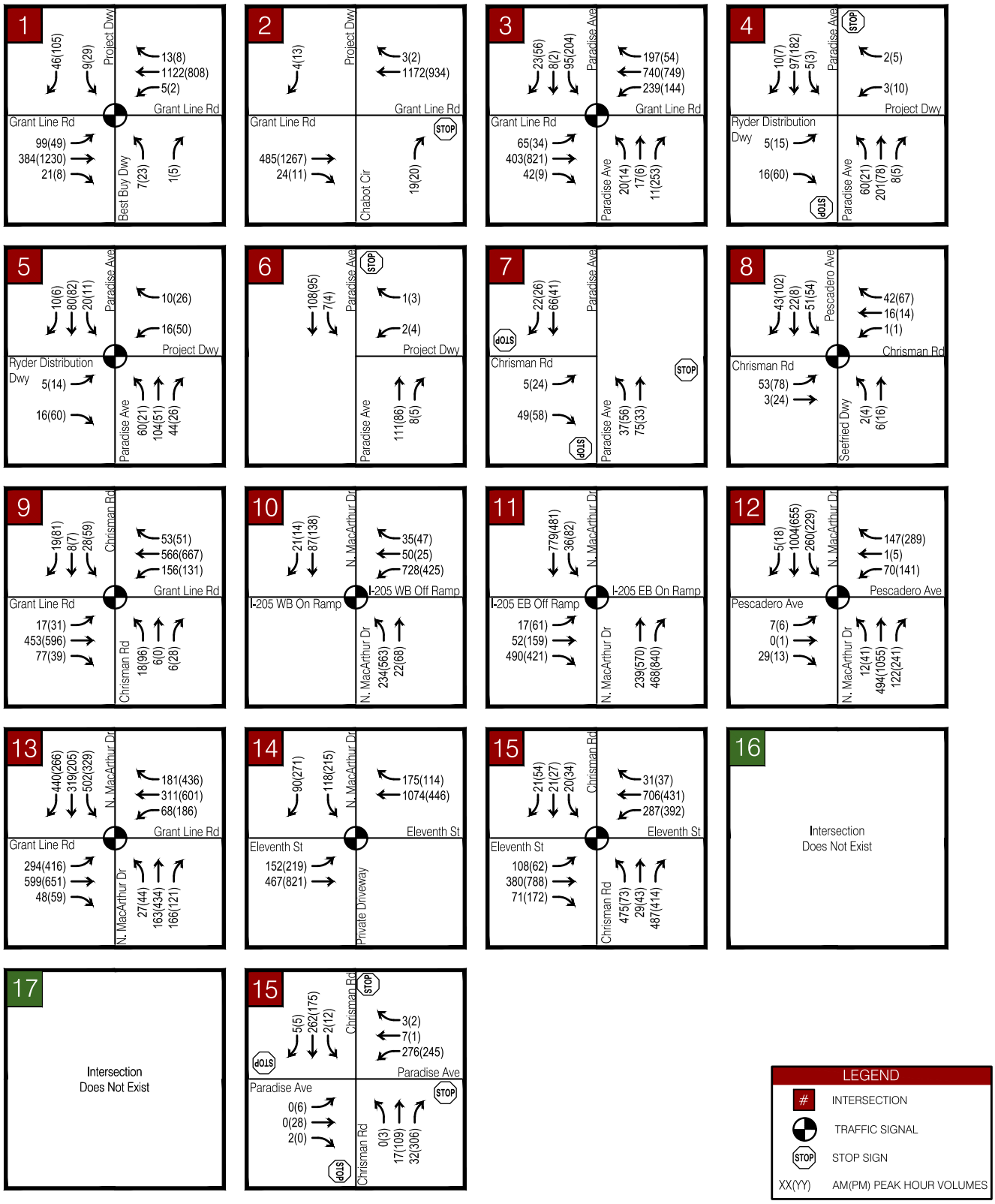


Source: Kimley-Horn and Associates, Inc., February 2021.

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Exhibit 3.14-15
Background Plus Project Conditions Traffic Control and Geometry

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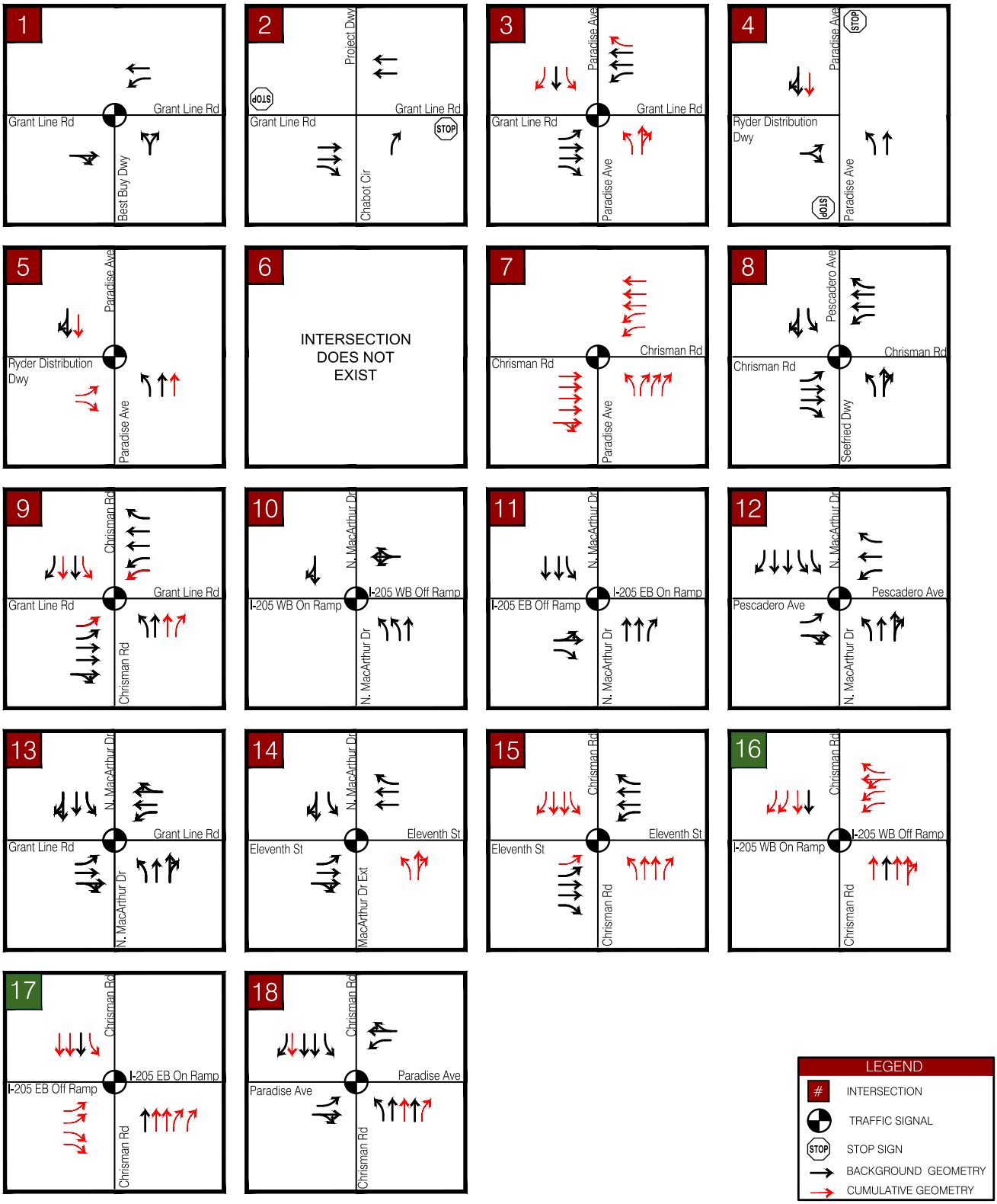


Source: Kimley-Horn and Associates, Inc., February 2021.

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Exhibit 3.14-16
Background Plus Project Conditions Peak Hour Traffic Volumes (For Full Project)

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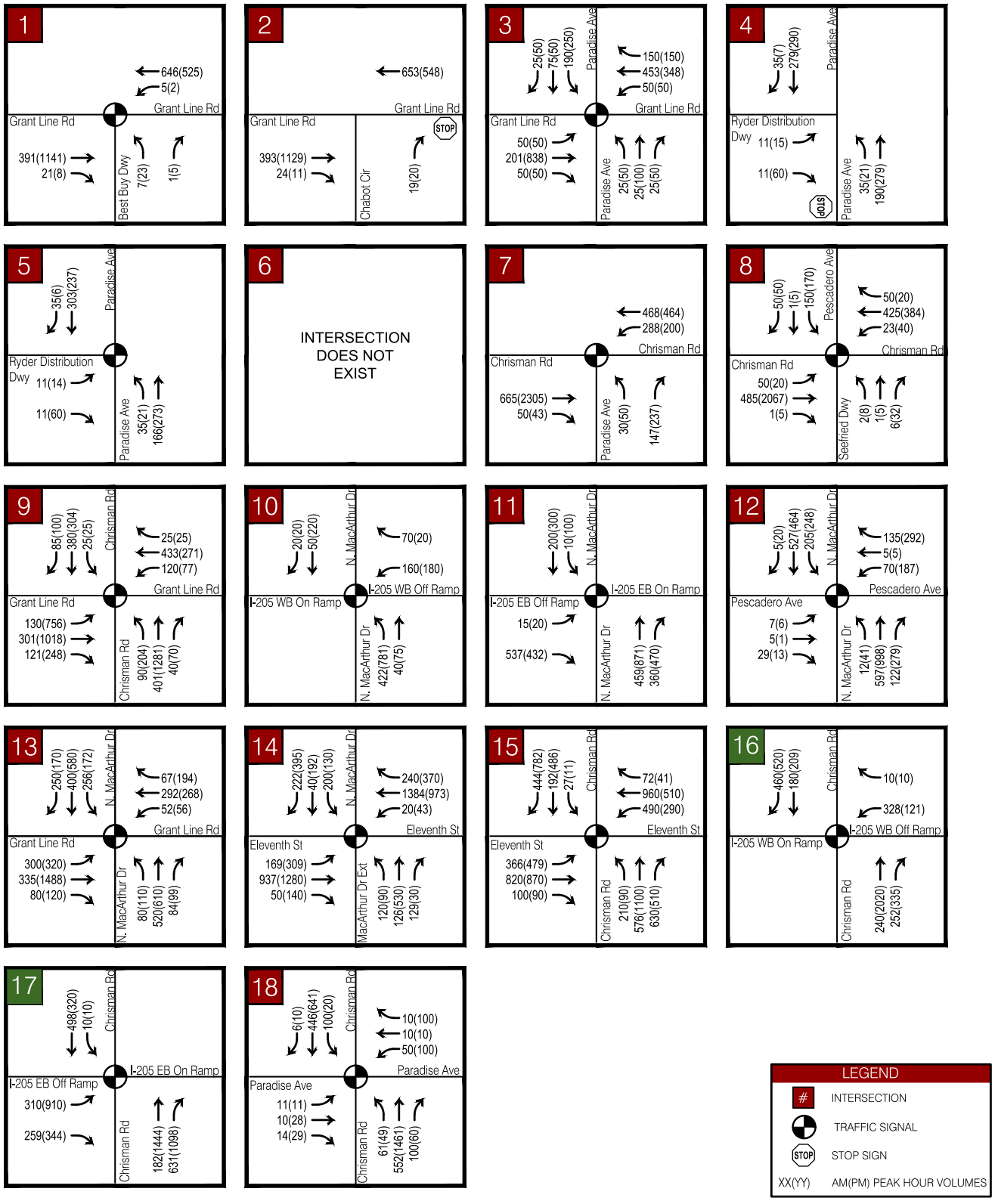


Source: Kimley-Horn and Associates, Inc., February 2021.

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Exhibit 3.14-17
Cumulative Conditions Traffic Control and Geometry

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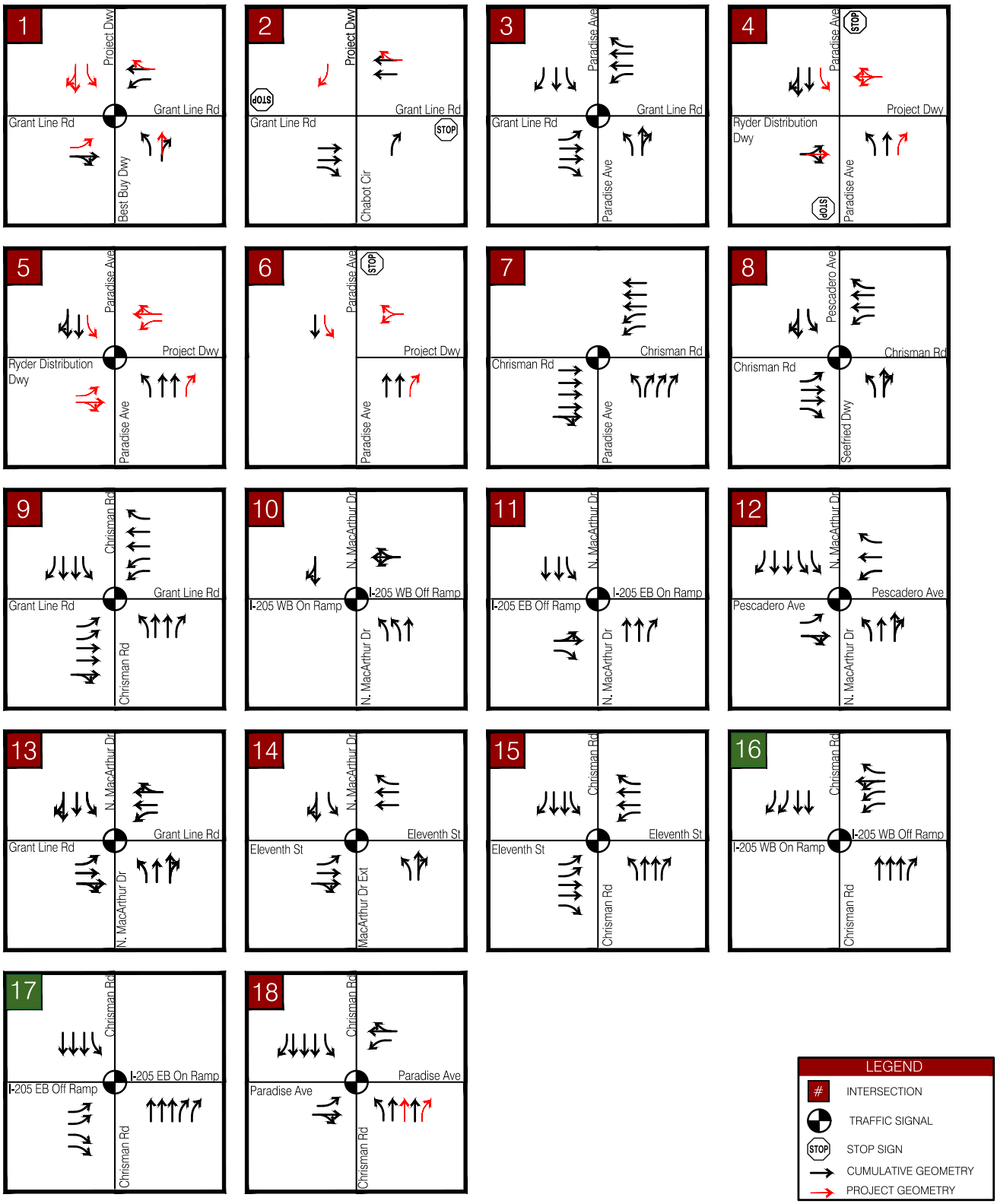


Source: Kimley-Horn and Associates, Inc., February 2021.

Exhibit 3.14-18
Cumulative Conditions
Peak Hour Traffic Volumes

FIRSTCARBON SOLUTIONS™

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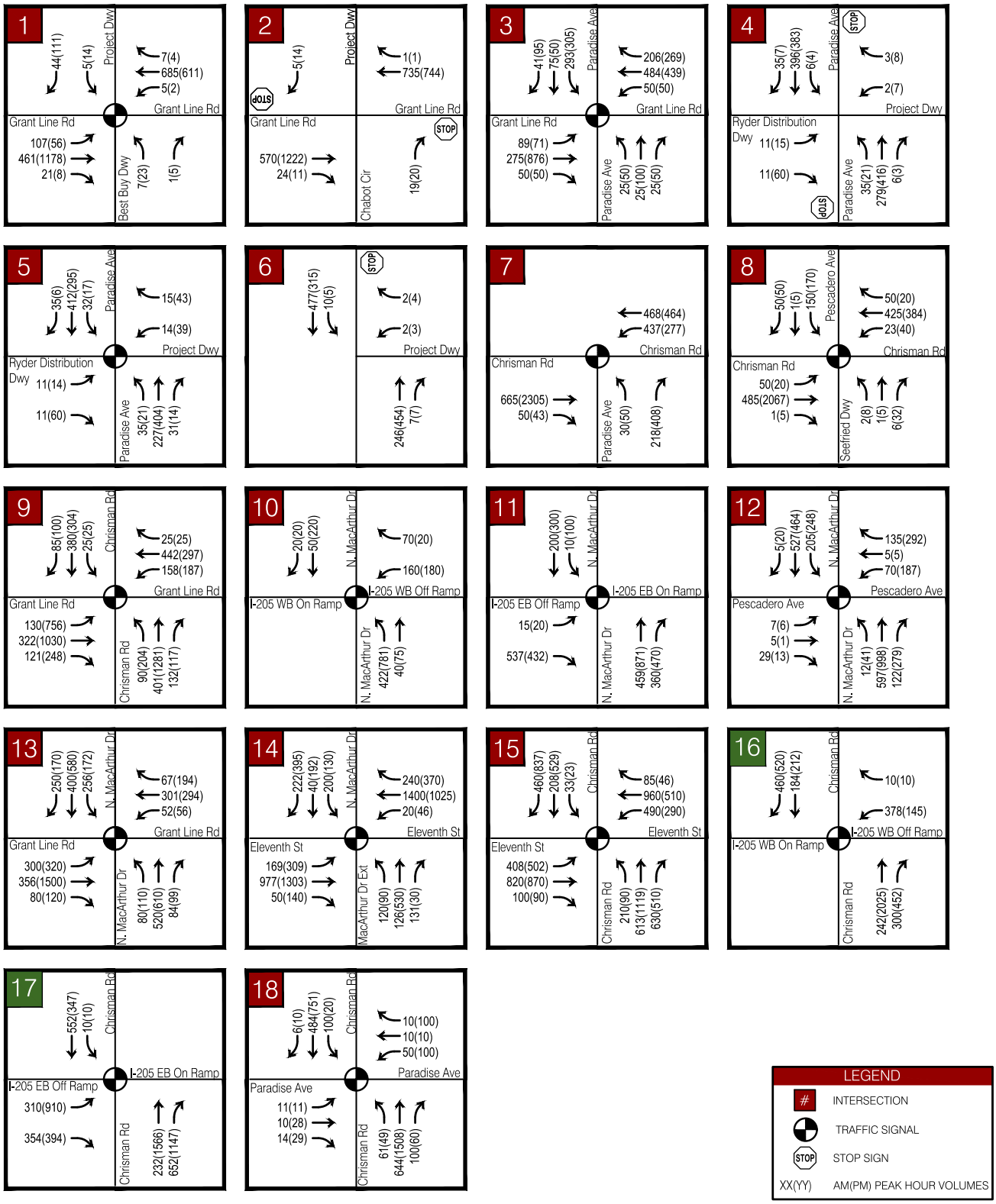


Source: Kimley-Horn and Associates, Inc., February 2021.

Exhibit 3.14-19
Cumulative Plus Project Conditions Traffic Control and Geometry

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Source: Kimley-Horn and Associates, Inc., February 2021.

Exhibit 3.14-20
Cumulative Plus Project Conditions Peak Hour Traffic Volumes

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3.15 - Tribal Cultural Resources

3.15.1 - Introduction

This section describes the existing tribal cultural resources setting in the region, the project site and vicinity as well as the relevant regulatory setting. This section also evaluates the potential impacts related to tribal cultural resources that could result from implementation of the proposed project. Information in this section is based, in part, on initial consultation with the Native American Heritage Commission (NAHC), subsequent consultation with tribal representatives identified by the NAHC who may have interest in or additional information on tribal cultural resources that may be impacted by proposed project development. The analysis in this section is based, in part, on the recommendations provided in the Phase I Cultural Resources Assessment (Phase I CRA) prepared for this project, which is provided in Appendix D. The following comments were received during the Draft Environmental Impact Report (Draft EIR) scoping period related to tribal cultural resources:

One comment letter was received from the NAHC during the Draft EIR scoping period related to cultural and tribal resources.

- Recommends contact with the appropriate California Historical Resources Information System (CHRIS) Center for an archaeological records search.
- Recommends contact with the NAHC for a Sacred Lands File search and Native American Tribal Consultation List.
- Recommends that the Lead Agency include provisions for the identification and evaluation of inadvertently discovered archaeological resources in their Mitigation Monitoring and Reporting Program (MMRP).
- Recommends that Lead Agencies include in their MMRP plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
- Recommends that the Lead Agency should include in their MMRP plans provisions for the treatment and disposition of inadvertently discovered Native American human remains.

3.15.2 - Environmental Setting

Tribal Cultural Resources Components

The term “tribal cultural resources” encompasses tribal cultural resources and burial sites. Below is a brief summary of each component:

- **Tribal Cultural Resources:** Tribal Cultural Resources include sites, features, places, or objects that are of cultural value to one or more California Native American Tribes.
- **Burial Sites and Cemeteries:** Burial sites and cemeteries are formal or informal locations where human remains have been interred and that are of cultural value to one or more California Native American Tribes.

Overall Tribal Cultural Resources Setting

Following is a brief overview of the prehistory and ethnographic background, providing a context in which to understand the background and relevance of sites found in the general project study area. This section is not intended to be a comprehensive review of the current resources available; rather, it serves as a general overview. Further details can be found in ethnographic studies, mission records, and major published sources.[1,2,3,4,5,6]

Prehistoric Background

The Northern San Joaquin Valley remains one of the least known ethnographic areas of California. Although little record of their culture has survived, research indicates Native Americans occupied portions of northern San Joaquin County for over 10,000 years.

Early archaeological investigations in central California were conducted at sites located in the Sacramento-San Joaquin Delta region. The first published account documents investigations in the Lodi and Stockton area.[7] The initial archaeological reports typically contained descriptive narratives, with more systematic approaches sponsored by Sacramento Junior College in the 1930s. At the same time, University of California at Berkeley excavated several sites in the lower Sacramento Valley and Delta region, which resulted in recognizing archaeological site patterns based on variations of inter-site assemblages. Research during the 1930s identified temporal periods in central California prehistory and provided an initial chronological sequence.[8,9] In 1939, Lillard noted that each cultural period led directly to the next and that influences spread from the Delta region to other regions in central California.[10] In the late 1940s and early 1950s, Beardsley documented similarities in artifacts among sites in the San Francisco Bay region and the Delta and refined his findings into a cultural model that ultimately became known as the Central California Taxonomic System (CCTS). This system proposed a uniform, linear sequence of cultural succession.[11] The CCTS system was challenged by Gerow, whose work looked at radiocarbon dating to show that Early and Middle Horizon sites were not subsequent developments but, at least partially, contemporaneous.[12,13,14] To address some of the flaws in the CCTS system, Fredrickson[15] introduced a revision that incorporated a system of

1 Kroeber, A.L. 1925. Handbook of the Indians of California. Bulletin 78. Bureau of American Ethnology. Washington, D.C. Smithsonian Institution.
2 Beardsley, R.K. 1948. "Cultural Sequences in Central California Archaeology." American Antiquity 14:1-28.
3 Bennyhoff, J. 1950. Californian Fish Spears and Harpoons. Berkeley: University of California Anthropological Records 9(4):295-338.
4 Chartkoff J.L. and K.K. Chartkoff. 1984. The Archaeology of California. Menlo Park: Stanford University Press.
5 Moratto, M.J. 1984. California Archaeology. San Diego: Academic Press.
6 Jones, T.L. and Kathryn A. Klar. 2007. California Prehistory. Lanham: AltaMira Press; Rowman & Littlefield Publishers, Inc.
7 Schenck, W.E., and E.J. Dawson. 1929. Archaeology of the Northern San Joaquin Valley. American Archaeology and Ethnology 25:286–413
8 Lillard, J.B. and W.K. Purves. 1936. The Archaeology of the Deer Creek-Cosumnes Area, Sacramento Co., California. Sacramento. Sacramento Junior College, Department of Anthropology Bulletin 1.
9 Lillard, J.B., R.F. Heizer, and F. Fenenga. 1939. An Introduction to the Archaeology of Central California. Sacramento Junior College, Department of Anthropology, Bulletin 2. Sacramento.
10 Lillard, J.B., R.F. Heizer, and F. Fenenga. 1939. An Introduction to the Archaeology of Central California. Sacramento Junior College, Department of Anthropology, Bulletin 2. Sacramento.
11 Beardsley, R.K. 1948. "Cultural Sequences in Central California Archaeology." American Antiquity 14:1-28.
12 Gerow, B.A. 1954. The Problem of Cultural Sequences in Central California Archaeology. Paper presented at the Annual Meeting of the American Association for the Advancement of Sciences.
13 Gerow, B.A. 1974. Comments on Fredrickson's Cultural Diversity. The Journal of California Anthropology 1(2):239–246.
14 Gerow, B.A., with R. Force. 1968. An Analysis of the University Village Complex with a Reappraisal of Central California Archaeology. Stanford University Press. Stanford., California.
15 Fredrickson, D.A. 1973. Early Cultures of the North Coast Ranges, California. Unpublished Ph.D. dissertation, Department of Anthropology, University of California, Davis.

spatial and cultural integrative units. Fredrickson separated cultural, temporal, and spatial units from each other and assigned them to six chronological periods: Paleo-Indian (12,000 to 8000 Before Present [BP]); Lower, Middle and Upper Archaic (8000 BP to 1500 BP), and Emergent (Upper and Lower, 1500 BP to historic period). The suggested temporal ranges are similar to earlier horizons, which are broad cultural units that can be arranged in a temporal sequence.[16] In addition, Fredrickson defined several patterns—a general way of life shared within a specific geographical region. These patterns include:

- Windmiller Pattern or Early Horizon (5000 to 3000 BP)
- Berkeley Pattern or Middle Horizon (3000 to 1500 BP)
- Augustine Pattern or Late Horizon (1500 BP to historic period)

Brief descriptions of these temporal ranges and their unique characteristics follow.

Windmiller Pattern or Early Horizon (5000 to 3000 BP)

Characterized by the Windmiller Pattern, the Early Horizon was centered in the Cosumnes district of the Delta and emphasized hunting rather than gathering, as evidenced by the abundance of projectile points in relation to plant processing tools. Additionally, atlatl, dart, and spear technologies typically included stemmed projectile points of slate and chert but minimal obsidian. The large variety of projectile point types and faunal remains suggests exploitation of numerous types of terrestrial and aquatic species.[17,18] Burials occurred in cemeteries and intra-village graves. These burials typically were ventrally extended, although some dorsal extensions are known with a westerly orientation and a high number of grave goods. Trade networks focused on acquisition of ornamental and ceremonial objects in finished form rather than on raw material. The presence of artifacts made of exotic materials such as quartz, obsidian, and shell indicate an extensive trade network that may represent the arrival of Utian populations into central California. Also indicative of this period are rectangular *Haliotis* and *Olivella* shell beads, and charmstones that usually were perforated.

Berkeley Pattern or Middle Horizon (3000 to 1500 BP)

The Middle Horizon is characterized by the Berkeley Pattern, which displays considerable changes from the Early Horizon. This period exhibited a strong milling technology represented by minimally shaped cobble mortars and pestles, although metates and manos were still used. Dart and atlatl technologies during this period were characterized by non-stemmed projectile points made primarily of obsidian. Fredrickson[19] suggests that the Berkeley Pattern marked the eastward expansion of Miwok groups from the San Francisco Bay Area. Compared with the Early Horizon, there is a higher proportion of grinding implements at this time, implying an emphasis on plant resources rather than on hunting. Typical burials occurred within the village with flexed positions, variable cardinal orientation, and some cremations. As noted by Lillard, Heizer, and Fenenga, the practice of spreading

[16] Moratto, M.J. 1984. California Archaeology. San Diego: Academic Press
[17] Bennyhoff, J. 1950. Californian Fish Spears and Harpoons. University of California Anthropological Records 9(4):295–338.
[18] Ragir, S.R. 1972. The Early Horizon in Central California Prehistory. Contributions of the University of California Archaeological Research Facility 15. Berkeley, CA.
[19] Fredrickson, D.A. 1973. Early Cultures of the North Coast Ranges, California. Unpublished Ph.D. dissertation, Department of Anthropology, University of California, Davis.

ground ochre over the burial was common at this time.[20] Grave goods during this period are generally sparse and typically include only utilitarian items and a few ornamental objects. However, objects such as charmstones, quartz crystals, and bone whistles occasionally were present, which suggest the religious or ceremonial significance of the individual.[21] During this period, larger populations are suggested by the number and depth of sites compared with the Windmiller Pattern. According to Fredrickson,[22] the Berkeley Pattern reflects gradual expansion or assimilation of different populations rather than sudden population replacement and a gradual shift in economic emphasis.

Augustine Pattern or Late Horizon (1500 BP to Historic Period)

The Late Horizon is characterized by the Augustine Pattern, which represents a shift in the general subsistence pattern. Changes include the introduction of bow and arrow technology; and most importantly, acorns became the predominant food resource. Trade systems expanded to include raw resources as well as finished products. There are more baked clay artifacts and extensive use of Haliotis ornaments of many elaborate shapes and forms. Burial patterns retained the use of flexed burials with variable orientation, but there was a reduction in the use of ochre and widespread evidence of cremation.[23] Judging from the number and types of grave goods associated with the two types of burials, cremation seems to have been reserved for individuals of higher status, whereas other individuals were buried in flexed positions. Johnson suggests that the Augustine Pattern represents expansion of the Wintuan population from the north, which resulted in combining new traits with those established during the Berkeley Pattern.[24]

Central California research has expanded from an emphasis on defining chronological and cultural units to a more comprehensive look at settlement and subsistence systems. This shift is illustrated by the early use of burials to identify mortuary assemblages and more recent research using osteological data to determine the health of prehistoric populations.[25] Although debate continues over a single model or sequence for central California, the general framework consisting of three temporal/cultural units is generally accepted, although the identification of regional and local variation is a major goal of current archaeological research.

Ethnographic Background

Prior to European American contact, the Tracy area was inhabited by the Northern Valley Yokuts, whose range extended from the Calaveras River to the southern extent of the San Joaquin River. The Northern Valley Yokuts were one of three major subgroups that occupied much of the San Joaquin Valley: the Northern Valley, the Foothill, and the Southern Valley Yokuts. Each ethnolinguistic group was composed of autonomous, culturally, and linguistically related tribes or tribelets. Ethnographic

[20] Lillard, J.B., R.F. Heizer, and F. Fenenga. 1939. An Introduction to the Archaeology of Central California. Sacramento Junior College, Department of Anthropology, Bulletin 2. Sacramento.

[21] Hughes, R.E. (editor). 1994. Toward a New Taxonomic Framework for Central California Archaeology: Essays by James A. Bennyhoff and David A. Fredrickson. Assembled and edited by Richard E. Hughes. Contributions of the University of California No. 52, Archaeological Research Facility, Berkeley, CA.

[22] Fredrickson, D.A. 1973. Early Cultures of the North Coast Ranges, California. Unpublished Ph.D. dissertation, Department of Anthropology, University of California, Davis.

[23] Moratto, M.J. 1984. California Archaeology. San Diego: Academic Press.

[24] Johnson, J.J. 1976. Archaeological Investigations at the Blodgett Site (CA-SAC-267), Sloughhouse Locality, California. Report to the U.S. National Parks Service, Western Regional Office, Tucson, Arizona.

[25] Dickel, D.N., P. D. Schulz, and H.M. McHenry. 1984. Central California: Prehistoric Subsistence Changes and Health. In Paleopathology at the Origins of Agriculture, edited by Mark Nathan Cohen and George J. Armelagos, pp. 439–462. Academic Press, Inc., Orlando, FL.

evidence suggests the project site was part of the Northern Valley Yokuts territory.

The Northern Valley Yokuts, who lived along the San Joaquin River and its tributaries and within the vicinity of the project site, are one of the least known of the California Indian groups. This is due to the almost complete destruction of their tribal life in the early 19th century. What can be gleaned from the diaries and reports of Spanish soldiers and priests is that fish, waterfowl, and acorns were important food resources for the Northern Valley Yokuts. The local rivers and their tule marshes contained salmon, sturgeon, perch, suckers, and pike, which were caught using nets, weighted with stone sinkers and bone harpoons. Waterfowl, such as geese, ducks, and other aquatic birds, were abundant in the marshes and probably played a major role in the Northern Valley Yokuts subsistence base.[26] Dogs were domesticated and may have been raised for food, a taboo to some tribes but not the Yokuts.[27,28] Wild plant resources, especially acorns, were of prime importance and in a good year a valley oak could produce 300 to 500 pounds of acorns, which were then ground into meal and cooked into porridge. Tule reed roots were likewise gathered and ground into meal that was traditionally served as porridge.[29]

Stone mortars and pestles, milling stones, hammers, choppers, and projectile points were manufactured from local rock sources. Notably, although obsidian was imported into the area, it was used infrequently for tools or weapons. Bone tools, particularly awls, were used in basket manufacture.[30] Most villages were built near rivers on elevated land to avoid flooding during heavy rains or spring runoff from the Sierras. Archaeological excavations in Merced and Fresno counties indicate that houses were single-family dwellings, probably made with an oval framework of lightweight poles covered by mats of tule reeds. Hard-packed earthen floors 25 to 40 feet in diameter were constructed several feet below ground level. Communities typically contained a sweathouse and sometimes a large ceremonial structure. The size of the Yokuts communities is uncertain, but estimates indicate that the principal settlements contained 200-250 inhabitants.[31]

Several northern Yokut tribelets lived near what is now the City of Tracy: including the Chulamni to the north and the Hoyima to the southeast. The Chulamni tribelet built their villages near the City, along the banks of the Old River and San Joaquin River and along creeks in the Diablo Range. The largest Chulamni village site near the City was named “Pescadero” by the Spanish during one of their first expeditions in 1810 and 1811. Contact with Europeans was particularly devastating for the Northern Valley Yokuts. This group was adversely impacted by missionization in the early 1800s, European diseases, and the influx of miners and settlers because of the 1849 gold rush.[32] Kroeber

[26] Wallace, W.J. 1978. Northern Valley Yokuts. In Handbook of North American Indians, Vol. 8: California, edited by R.F. Heizer, 448–461. Washington, DC. Smithsonian Institution.
[27] Kroeber, A.L. 1925. Handbook of the Indians of California. Bulletin 78. Bureau of American Ethnology. Washington, DC. Smithsonian Institution.
[28] Wallace, W.J. 1978. Northern Valley Yokuts. In Handbook of North American Indians, Vol. 8: California, edited by R.F. Heizer, 448–461. Washington, DC. Smithsonian Institution.
[29] Ibid.
[30] Ibid.
[31] Ibid.
[32] Ibid.

observed that their habitat in the open river valley left them especially vulnerable, compared to mountain dwellers, to "the full brunt of civilization."[33]

Contact with the Spanish commenced early in the 19th century and normally consisted of sporadic visits by small exploration parties. However, between 1805 and the 1820s, Franciscan priests from the coastal missions began recruiting converts from further inland, and a large portion of the Yokuts population was taken to various missions in San José, Santa Clara, Soledad, San Juan Bautista, and San Antonio. Many neophytes deserted and returned to their homes, but were sought and brought back by Spanish soldiers. A decade after the Mexican government claimed independence from Spain in 1822, the missions were converted into parish churches, and many Native Americans were released and returned to their former territory, though not necessarily to the specific location from which they came.

After the American conquest of California in 1846, the remaining Northern Valley Yokuts were driven off their land by miners heading south, farmers pursuing the locally rich soil, and the construction of various railroads. By the time scholars were interested in gathering information on California native groups, there were few people left to provide descriptions of native life before European contact.[34]

Records Searches to Identify Existing Tribal Cultural Resources

NAHC Sacred Lands File Search and Tribal Correspondence

On March 31, 2020, FCS sent a letter to the NAHC to determine whether any sacred sites are listed on its Sacred Lands File for the project site. A response was received on April 1, 2020, indicating that the Sacred Lands File search failed to indicate the presence of Native American tribal cultural resources in the vicinity of the project site. The NAHC included a list of two tribal representatives available for consultation. To ensure that all Native American knowledge and concerns over potential tribal cultural resources that may be affected by the project are addressed, FCS sent a letter containing project information and requesting any additional information to each tribal representative on April 2, 2020. The City initiated Senate Bill (SB) 18 consultation on April 15, 2020. No responses have been received to date. NAHC Sacred Lands File Search and Tribal Correspondence is provided in Appendix D.

3.15.3 - Regulatory Framework

Federal

National Historic Preservation Act

The National Historic Preservation Act of 1966 (NHPA), as amended, established the National Register of Historic Places (NRHP), which contains an inventory of the nation's significant prehistoric and historic properties. Under the Code of Federal Regulations (36 Code of Federal Regulations [CFR]

[33] Kroeber, A.L. 1925. Handbook of the Indians of California. Bulletin 78. Bureau of American Ethnology. Washington, DC. Smithsonian Institution.

[34] Wallace, W.J. 1978. Northern Valley Yokuts. In Handbook of North American Indians, Vol. 8: California, edited by R.F. Heizer, 448–461. Washington, DC. Smithsonian Institution.

60), a property is recommended for possible inclusion on the NRHP if it is at least 50 years old, has integrity, and meets one of the following criteria:

- It is associated with significant events in history, or broad patterns of events.
- It is associated with significant people in the past.
- It embodies the distinctive characteristics of an architectural type, period, or method of construction; or it is the work of a master or possesses high artistic value; or it represents a significant and distinguishable entity whose components may lack individual distinction.
- It has yielded, or may yield, information important in history or prehistory.

Certain types of properties are usually excluded from consideration for listing in the NRHP, but they can be considered if they meet special requirements in addition to meeting the criteria listed above. Such properties include religious sites, relocated properties, graves and cemeteries, reconstructed properties, commemorative properties, and properties that have achieved significance within the past 50 years.

Archaeological Resources Protection Act

The Archaeological Resources Protection Act (ARPA) amended the Antiquities Act of 1906 (16 United States Code [USC] 431–433) and set a broad policy that archaeological resources are important to the nation and should be protected and required special permits before the excavation or removal of archaeological resources from public or Indian lands. The purpose of ARPA was to secure, for the present and future benefit of the American people, the protection of archaeological resources and sites that are on public lands and Indian lands, and to foster increased cooperation and exchange of information between governmental authorities, the professional archaeological community, and private individuals having collections of archaeological resources and data that were obtained before October 31, 1979.

American Indian Religious Freedom Act

The American Indian Religious Freedom Act (AIRFA) established federal policy to protect and preserve the inherent rights of freedom for Native American groups to believe, express, and exercise their traditional religions. These rights include but are not limited to access to sites, use and possession of sacred objects, and freedom to worship through ceremonials and traditional rites.

Native American Graves Protection and Repatriation Act

The Native American Graves Protection and Repatriation Act (NAGPRA) of 1990 sets provisions for the intentional removal and inadvertent discovery of human remains and other cultural items from federal and tribal lands. It clarifies the ownership of human remains and sets forth a process for repatriation of human remains and associated funerary objects and sacred religious objects to the Native American groups claiming to be lineal descendants or culturally affiliated with the remains or objects. It requires any federally funded institution housing Native American remains or artifacts to compile an inventory of all cultural items within the museum or with its agency and to provide a summary to any Native American tribe claiming affiliation.

State

CEQA Guidelines Section 15064.5(a)—CEQA Definition of Historical Resources

California Environmental Quality Act (CEQA) Guidelines Section 15064.5(a), in Title 14 of the California Code of Regulations, defines a "historical resource" as:

(1) A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources.

(2) A resource included in a local register of historical resources, as defined in Section 5020.1(k) of the Public Resources Code or identified as significant in a historical resource survey meeting the requirements of Section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

(3) Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources.

(4) The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to Section 5020.1(k) of the Public Resources Code), or identified in a historical resources survey (meeting the criteria in Section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be a historical resource as defined in Public Resources Code Sections 5020.1(j) or 5024.1.

Therefore, under the CEQA Guidelines, even if a resource is not included on any local, State, or federal register, or identified in a qualifying historical resources survey, a lead agency may still determine that any resource is a historical resource for the purposes of CEQA if there is substantial evidence supporting such a determination. A lead agency must consider a resource to be historically significant if it finds that the resource meets the criteria for listing in the California Register of Historical Resources (CRHR).

Archaeological and historical sites are protected pursuant to a wide variety of State policies and regulations, as enumerated in the Public Resources Code. Cultural resources are recognized as nonrenewable resources and receive additional protection under the Public Resources Code and CEQA.

CEQA Guidelines Section 15064.5(a)(3)—California Register of Historical Resources Criteria

As defined by CEQA Guidelines, Section 15064.5(a)(3)(A-D), a resource shall be considered historically significant if the resource meets the criteria for listing on the CRHR. The CRHR and many local preservation ordinances have employed the criteria for eligibility to the NRHP as a model (see

criteria described above under the description of the NHPA), since the NHPA provides the highest standard for evaluating the significance of historic resources. A resource that meets NRHP criteria is clearly significant. In addition, a resource that does not meet NRHP standards may still be considered historically significant at a local or State level.

California Public Resources Code Section 5024.1—California Register of Historic Resources

Section 5024.1 of the Public Resources Code states that the CRHR is a guide to be used by State and local agencies, private groups, and citizens to identify the State's historical resources and to indicate what properties are to be protected from substantial adverse change. Administration of the CRHR is to be overseen by the NAHC. Section 5024.1 indicates that the register shall include historical resources determined by the NAHC, according to adopted procedures, to be significant and to meet the criteria in subdivision (c).

CEQA Guidelines 15064.5(c)—Effects on Archaeological Resources

CEQA Guidelines state that a resource need not be listed on any register to be found historically significant. CEQA Guidelines direct lead agencies to evaluate archaeological sites to determine whether they meet the criteria for listing in the CRHR. If an archaeological site is a historical resource, in that it is listed or eligible for listing in the CRHR, potential adverse impacts to it must be considered. If an archaeological site is considered not to be a historical resource but meets the definition of a "unique archaeological resource" as defined in Public Resources Code Section 21083.2, then it would be treated in accordance with the provisions of that section.

CEQA Guidelines Section 15064.5(d)—Effects on Human Remains

Native American human remains and associated burial items may be significant to descendant communities and/or may be scientifically important for their informational value. They may be significant to descendant communities for patrimonial, cultural, lineage, and religious reasons. Human remains may also be important to the scientific community, such as prehistorians, epidemiologists, and physical anthropologists. The specific stake of some descendant groups in ancestral burials is a matter of law for some groups, such as Native Americans (CEQA Guidelines § 15064.5(d); PRC § 5097.98). CEQA and other State regulations regarding Native American human remains provide the following procedural requirements to assist in avoiding potential adverse effects on human remains within the contexts of their value to both descendant communities and the scientific community:

- When an initial study identifies the existence or probable likelihood that a project would affect Native American human remains, the Lead Agency is to contact and work with the appropriate Native American representatives identified through the NAHC to develop an agreement for the treatment and disposal of the human remains and any associated burial items (CEQA Guidelines § 15064.5(d); PRC § 5097.98).
- If human remains are accidentally discovered, the County Coroner must be contacted. If the County Coroner determines that the human remains are Native American, the coroner must contact the NAHC within 24 hours. The NAHC must identify the most likely descendant (MLD) to provide for the opportunity to make recommendations for the treatment and disposal of the human remains and associated burial items.

- If the MLD fails to make recommendations within 24 hours of notification or the project applicant rejects the recommendations of the MLD, the Native American human remains and associated burial items must be reburied in a location not subject to future disturbance within the project site (PRC § 5097.98).
- If potentially affected human remains or a burial site may have scientific significance, whether or not it has significance to Native Americans or other descendant communities, then under CEQA, the appropriate mitigation of effect may require the recovery of the scientific information of the remains/burial through identification, evaluation, data recovery, analysis, and interpretation (CEQA Guidelines § 15064.5(c)(2)).

California Public Resources Code Section 5097.91—Native American Heritage Commission

Section 5097.91 of the Public Resources Code established the NAHC, whose duties include the inventory of places of religious or social significance to Native Americans and the identification of known graves and cemeteries of Native Americans on private lands. Under Section 5097.91 of the Public Resources Code, a State policy of noninterference with the free expression or exercise of Native American religion was articulated along with a prohibition of severe or irreparable damage to Native American sanctified cemeteries, places of worship, religious or ceremonial sites or sacred shrines located on public property. Section 5097.98 of the Public Resources Code specifies a protocol to be followed when the NAHC receives notification of a discovery of Native American human remains from a County Coroner. Section 5097.5 defines as a misdemeanor the unauthorized disturbance or removal of archaeological, historic, or paleontological resources located on public lands.

California Senate Bill 18—Protection of Tribal Cultural Places

SB 18 (California Government Code § 65352.3) incorporates the protection of California traditional tribal cultural places into land use planning for cities, counties, and agencies by establishing responsibilities for local governments to contact, refer plans to, and consult with California Native American tribes as part of the adoption or amendment of any general or specific plan proposed on or after March 1, 2005. SB 18 requires public notice to be sent to tribes listed on the NAHC SB 18 Tribal Consultation list within the geographical areas affected by the proposed changes. Tribes must respond to a local government notice within 90 days (unless a shorter time frame has been agreed upon by the tribe), indicating whether or not they want to consult with the local government. Consultations are for the purpose of preserving or mitigating impacts to places, features, and objects described in Sections 5097.9 and 5097.993 of the Public Resources Code that may be affected by the proposed adoption or amendment to a general or specific plan.

California Assembly Bill 52—Effects on Tribal Cultural Resources

Assembly Bill (AB) 52 was signed into law on September 25, 2014, and provides that any public or private "project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment." Tribal Cultural Resources include "[s]ites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are eligible for inclusion in the California Register of Historical Resources or included in a local register of historical resources."

Under prior law, Tribal Cultural Resources (TCRs) were typically addressed under the umbrella of "cultural resources," as discussed above. AB 52 formally added the category of "tribal cultural resources" to CEQA and extends the consultation and confidentiality requirements to all projects, rather than just projects subject to SB 18 as discussed above.

The parties must consult in good faith, and consultation is deemed concluded when either: (1) the parties agree to measures to mitigate or avoid a significant effect on a tribal cultural resource (if such a significant effect exists); or (2) when a party concludes that mutual agreement cannot be reached. Mitigation measures agreed upon during consultation must be recommended for inclusion in the environmental document. AB 52 also identifies mitigation measures that may be considered to avoid significant impacts if there is no agreement on appropriate mitigation. Recommended measures include:

- Preservation in place
- Protecting the cultural character and integrity of the resource
- Protecting the traditional use of the resource
- Protecting the confidentiality of the resource
- Permanent conservation easements with culturally appropriate management criteria

AB 52 amended the CEQA statute to identify an additional category of resource to be considered under CEQA, called "tribal cultural resources," and added Public Resource Code Section 21074, which defines "tribal cultural resources" as follows:

(a)"Tribal cultural resources" are either of the following:
  (1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
    A) Included or determined to be eligible for inclusion in the CRHR.
    B) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.
  (2) 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 Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

(b) A cultural landscape that meets the criteria of subdivision (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.

(c) A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a "nonunique archaeological resource" as defined in subdivision (h) of Section 21083.2 may also be a tribal cultural resource if it conforms with the criteria of subdivision (a).

Local

City of Tracy General Plan

The Tracy General Plan includes the following goals, policies, and actions related to the protection of TCRs applicable to the proposed project.

Goal CC-3: Preserve and Enhance Historic Resources

Objective CC-3.1: Identify and Preserve Cultural and Historic Resources

Policies:

Policy P4 As part of the development review process, there shall be a standard condition of approval that if any resources are found during construction, all operations within the project area shall halt until an assessment can be made by appropriate professionals regarding the presence of archaeological and paleontological resources and the potential for adverse impacts on these resources.

Policy P5 Any archaeological or paleontological resources on private property shall be either preserved on their sites or adequately documented and conserved as a condition of removal. If any resources are found unexpectedly during development, then construction must cease immediately until accurate study and conservation measures are implemented.

Policy P6 If Native American artifacts are discovered on a site, the City shall consult representatives of the Native American community to ensure the respectful treatment of Native American sacred places.

3.15.4 - Project Impacts and Mitigation Measures

Significance Criteria

According to CEQA Guidelines Appendix G Environmental Checklist, to determine whether impacts related to tribal cultural resources result in significant environmental effects, the following questions are analyzed and evaluated. Would the proposed project:

a) 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. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Approach to Analysis

This evaluation focuses on whether the proposed project would impact tribal cultural resources. The tribal cultural resources impact analysis is based, in part, on information collected from record searches at the NAHC and information from tribal consultation conducted pursuant to AB 52 and SB 18. Impacts are typically associated with construction and/or ground-disturbing activities that have the potential to immediately alter, diminish, or destroy all or part of the character and quality of Native American artifacts and/or human remains that could be uncovered.

Impact Evaluation

Significance of Tribal Cultural Resource Eligible for California Register or Local Listing

Impact TCR-1:	**The proposed project could cause a substantial adverse change in the significance of a Tribal Cultural Resource that is 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).**

Construction

A review of the CRHR, local registers of historic resources, a records search conducted at the South Central Coastal Information Center (SCCIC), and an NAHC Sacred Lands File search failed to identify any listed tribal cultural resources that may be adversely affected by the proposed project. While it is possible that potentially eligible tribal cultural resources may be encountered during project construction, implementation of Mitigation Measure (MM) CUL-1 and MM CUL-3 would reduce potential impacts to a less than significant level.

Operation

Impacts related to a project's potential to cause a substantial adverse change in the significance of a State listed or eligible tribal cultural resource are limited to construction impacts. No respective operational impacts would occur.

Level of Significance Before Mitigation

Potentially Significant Impact

Mitigation Measures

Implement MM CUL-1 and MM CUL-3

Level of Significance After Mitigation

Less Than Significant Impact

Significance of Tribal Cultural Resource and Eligibility as Determined by Lead Agency

Impact TCR-2:	**The proposed project could cause a substantial adverse change in the significance of a Tribal Cultural 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.**

Construction

On March 31, 2020, a letter was sent to the NAHC to determine whether any sacred sites are listed on its Sacred Lands File for the project study area, which consists of the project site and standard 0.5-mile search radius. A response was received on April 2, 2020, indicating the search returned negative results for tribal cultural resources in the project study area and recommended contacting tribal representatives for additional information. The NAHC response letter included a list of two tribal representatives available for consultation. To ensure that Native American knowledge and concerns over potential tribal cultural resources that could be affected by the project are addressed, FCS sent a letter containing project information and requesting any additional information was sent to each of the tribal representatives on April 2, 2020.

On April 15, 2020, the City of Tracy Department of Development Services notified applicable tribal representatives of an opportunity to consult on the project pursuant to SB 18 (California Government Code § 65352.3). No responses have been received to date. The City of Tracy, in its capacity as Lead Agency, has also not identified or determined any known tribal cultural resources to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. Although there is the possibility that previously undiscovered tribal cultural resources could be encountered by subsurface earthwork activities associated with the proposed project, the implementation of construction mitigation measures MM CUL-1 and MM CUL-3 would ensure that undiscovered tribal cultural resources are not adversely affected by project-related construction activities.

Operation

Impacts related to a project's potential to cause a substantial adverse change in the significance of a State listed or eligible tribal cultural resource are limited to construction impacts. No respective operational impacts would occur.

Level of Significance Before Mitigation

Potentially Significant Impact

Mitigation Measures

Implement MM CUL-1 and MM CUL-3

Level of Significance After Mitigation

Less Than Significant Impact

3.15.5 - Cumulative Impacts

The geographic scope for the cumulative analysis is the project vicinity. This is because tribal cultural resource impacts tend to be localized, because the integrity of any given resource depends on what occurs in the immediate vicinity around that resource, such as disruption of soils; therefore, in addition to the project site itself, the area near the project site would be the area most affected by project activities (generally within a 0.5-mile radius). The cumulative setting includes existing agricultural and industrial uses. In addition, Cumulative Projects 15, 19, 27, 30, and 35 in Table 3-1, Cumulative Projects are all within a 0.5-mile radius of the project site. Compliance with applicable

federal and State laws and regulations and relevant General Plan policies requiring standard conditions of approval for all cumulative projects and measures (similar to those imposed on the project, i.e., MM CUL-1 and CUL-3) would reduce potentially cumulative impacts related to tribal cultural resources to a less than significant level.

With respect to the project's contribution, although there is the possibility that previously undiscovered tribal cultural resources could be encountered by subsurface earthwork activities associated with the proposed project, the implementation of construction mitigation measures (MM CUL-1 and MM CUL-3) would ensure that the project's contribution to the less than significant cumulative impact to undiscovered tribal cultural resources would not be cumulatively considerable.

Level of Cumulative Significance

Less Than Significant Impact With Mitigation

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3.16 - Utilities and Service Systems

3.16.1 - Introduction

This section describes the existing conditions related to utilities and service systems (water, wastewater, stormwater, solid waste, electric power, natural gas, and telecommunications facilities) in the City of Tracy (City) and the project site and vicinity as well as the relevant regulatory framework. This section also evaluates the potential impacts related to such utilities and service systems that could result from implementation of the proposed project. Analysis in this section is based, in part, on information provided in the Water Supply Assessment (WSA), Flood Protection Technical Memorandum, 2020 Urban Water Management Plan (2020 UWMP), 2012 Citywide Water System Master Plan (2012 WSMP), 2012 Tracy Wastewater Master Plan (2012 WWMP), 2012 Citywide Storm Drainage Master Plan (2012 SDMP), the California Department of Resources Recycling and Recovery (CalRecycle), and the City of Tracy General Plan (General Plan). As of the writing of this Draft Environmental Impact Report (EIR), the 2020 Draft Citywide Water System Master Plan Update (Draft 2020 WSMP), 2020 Draft City of Tracy Wastewater Master Plan Update (Draft 2020 WWMP), and the 2020 Draft Citywide Storm Drainage Master Plan Update (Draft 2020 SDMP), are currently being finalized, but these documents have not yet been approved and adopted by the City. Because these documents have not yet been approved and adopted, they are not "applicable" to the proposed project under the California Environmental Quality Act (CEQA). Accordingly, the technical analysis in this Draft EIR relies on the 2012 WSMP, 2012 WWMP, and 2012 SDMP, which are the relevant documents in place at the time of publication of the Notice of Preparation. A plan is "applicable" when it has been adopted and the proposed project is subject to it. State CEQA Guidelines Section 15125 (specifying that the environmental setting should discuss "existing permits or plans" and "adopted plans" and should not discuss "hypothetical conditions.") *See also* Public Resources Code Section 21083.1; *Chaparral Greens v. City of Chula Vista (1996)* 50 CA4th 1134, 1145 ("A plan that is in draft form cannot be said to be nonetheless legally applicable, or enforceable, as to a particular project.") No comments related to utilities were received as part of the Notice of Preparation (NOP) public scoping process.

3.16.2 - Environmental Setting

Water

No rivers or natural bodies of water are present within the City of Tracy; however, Old River is located approximately 0.5 mile north of the project site, outside of the city limits within unincorporated San Joaquin County.

Water Supply Assessment

A WSA was completed for the proposed project by West Yost in December 2021[1] and is provided in Appendix K. The purpose of the WSA was to complete an evaluation as required by California Water Code sections 10910 through 10915, established by Senate Bill (SB) 610 (explained in detail in Regulatory Framework, below). The WSA evaluates the adequacy of the City's total water supplies, including existing water supplies and future planned water supplies, to meet the City's existing and

[1] West Yost. 2021. Tracy Alliance Project Water Supply Assessment (prepared for the City of Tracy). December.

projected future water demands, including those future water demands associated with the proposed project, under all hydrological conditions (Normal Years, Single Dry Years, and Multiple Dry Years).

For the purposes of the WSA and this Draft EIR, "buildout" includes development within the City's Sphere of Influence (SOI) as envisioned by the General Plan and is assumed to occur in 2045.

Water Service Area

The City is in San Joaquin County, California, about 68 miles south of Sacramento and 60 miles east of San Francisco. The existing incorporated area of the City encompasses approximately 22 square miles. The City's General Plan includes the area outside of the city limits that the City expects to annex and urbanize in the future; i.e., the City's SOI. During the City's General Plan update process and in response to Local Agency Formation Commission (LAFCo) policies established in 2007, revisions to the City's SOI were made to more accurately reflect locations where the City may grow in the future, and to identify locations where no urban growth is expected. The adopted revised SOI encompasses an area of approximately 42 square miles, approximately 20 square miles larger than the current city limits. The City's water service area is coterminous with the existing city limits. As future developments within the SOI, but outside the city limits, are approved, it is anticipated that they will be annexed into the City and served by the City's water supply.

Water Source and Supply

The water supplies needed to serve the City's water service area, including the project site (i.e., existing water demands and planned future uses) are predominantly described in the 2020 UWMP. Therefore, the descriptions provided below for the City's water supplies have been taken, for the most part, from the 2020 UWMP.

Sources of the City's water supply include the Central Valley Project (CVP) via the Delta-Mendota Canal (DMC), the Stanislaus River, and groundwater pumped from a total of nine wells operated by the City, and untreated surface water from the Byron-Bethany Irrigation District (BBID) pre-1914 rights (treated at the City's John Jones Water Treatment Plant [JJWTP]). These sources and other supplementary sources are described below.

Surface Water

The City currently receives water from the following sources:

- Untreated surface water from the CVP via the DMC (treated at the City's JJWTP),
- Surface water from the Stanislaus River via the South County Water Supply Project (SCWSP), (delivered by the South San Joaquin Irrigation District [SSJID]),
- Groundwater pumped from nine groundwater wells located within the City, and
- Untreated surface water from the BBID pre-1914 rights (treated at the City's JJWTP).

Also, the City has entered into an agreement with the Semitropic Water Storage District for storage of water supplies for use in dry years, and has implemented an Aquifer Storage and Recovery (ASR)

Program to allow for injection of surface water supplies into the underlying groundwater basin for storage and later extraction. Exhibit 3.16-1 shows the City's historical use of these existing water supplies, which are described in more detail below.

Central Valley Project Water via the Delta-Mendota Canal

The City has contractual entitlements for CVP water as detailed below. In the aggregate, the City's contractual entitlement to the Municipal and Industrial (M&I) reliability CVP water and assignments of agricultural reliability (Ag-reliability) CVP water from Banta-Carbona Irrigation District (BCID) and West Stanislaus Irrigation District (WSID) are referred to as the City's "Existing Contract" with the United States Bureau of Reclamation (USBR). The total quantity of CVP water available to the City under its Existing Contract is 20,000 acre-feet per year (AFY) (10,000 AFY of M&I-reliability water and 10,000 AFY of Ag-reliability water).

The City's CVP water supplies are treated at the City's JJWTP, which was originally constructed in 1979, expanded in 1988, and then expanded again in 2008. The JJWTP is located just north of the DMC in the southern portion of the City. With the latest plant expansion, the current treatment capacity of the JJWTP is 30 million gallons per day (mgd), which is sufficient to treat all the City's existing and future CVP water supplies.[2]

From 2010 through 2018, an average of approximately 630 AFY of water from the Plain View Water District's (now BBID's) USBR allocation was treated at the JJWTP and delivered to the Patterson Pass Business Park through the City's water distribution system. A comparable quantity of BBID water is anticipated to be treated and delivered annually to the Patterson Pass Business Park in the future. Neither the water supply nor the demand for Patterson Pass Business Park are included in the City supply and demand estimates because the water supply is BBID's, not the City's, and the City only provides water treatment and delivery and billing services on a contractual basis for the Patterson Pass Business Park; the City does not manage either the supply or the demand.

Municipal and Industrial Reliability Contract

In July 1974, the City entered into a 40-year contract with the USBR for an annual entitlement of 10,000 AFY of surface water from the CVP via the DMC. The original USBR contract expired in 2014; however, since December 2013, the City and USBR have entered into a series of 2-year interim renewal contracts to provide water service to the City while the terms of the long-term contract renewal were negotiated. In November 2021, the Tracy City Council approved a new long-term contract with USBR which became effective on December 1, 2021. The new contract is for 20,000 AFY, which aggregates the City's M&I-reliability supplies and Ag-reliability supplies (discussed below) from the CVP. The new contract does not have a termination date and would continue as long as water is available and delivered.

Agricultural Reliability Contract

In 2004, the USBR approved the assignment of 5,000 AFY of Ag-reliability CVP contract entitlement to the City from the BCID. Concurrently, the USBR approved the assignment of 2,500 AFY of Ag-reliability CVP contract entitlement water to the City from WSID, with the option to purchase an

[2] Saffi, Lemar. Assistant Engineer, City of Tracy. Personal communication: email. April 1, 2022.

additional 2,500 AFY of CVP contract entitlement from the WSID. In December 2013, the City and WSID approved the additional assignment in which the City's current assignment of WSID CVP water is 5,000 AFY.

South of Delta Allocations

The City's CVP water supplies are subject to allocations determined by the USBR for 'South of Delta' contractors. Historical M&I and Ag allocations for the CVP water supplies are summarized in Table 3.16-1. Based on the historical record, the City's long-term average allocation of CVP water pursuant to the contract is anticipated to be at least 85 percent of the total entitlement. However, due to recent environmental concerns in the Delta and potential future impacts due to climate change, the normal year reliability of CVP water was conservatively assumed to be 75 percent in the 2020 UWMP. In addition, the City conservatively estimated that it will receive 50 percent of its Ag-reliability contractual entitlement in normal water years.[3]

During dry years, a CVP M&I contractor is typically eligible for a minimum shortage allocation equal to 75 percent of adjusted historical use. Per the CVP M&I Water Shortage Allocation Plan, the minimum shortage allocation may be reduced further when the allocation of Ag-reliability water in that year is reduced below 25 percent of contract entitlement. The component of the City's CVP supply that carries Ag-reliability is subject to more significant reductions and is much more dependent on yearly hydrologic conditions than the City's M&I-reliability allocation.

Table 3.16-1: Historical Allocations for United States Bureau of Reclamation Central Valley Water Project Water Supplies

Year	M&I Allocation for South of Delta Contractors (percent of contract supply)	Ag Allocation for South of Delta Contractors (percent of contract supply)
2005	100	85
2006	100	100
2007	75	50
2008	75	40
2009	60	10
2010	75	45
2011	100	80
2012	75	40
2013	70	20
2014	50	0
2015	Public health and safety needs or 25 percent of historical use, whichever is greater	0
2016	55 percent of historical use	5
2017	100 percent of contract amount	100

[3] City of Tracy. 2021. City of Tracy 2020 UWMP, Section 7.1.2.1. June.

Year	M&I Allocation for South of Delta Contractors (percent of contract supply)	Ag Allocation for South of Delta Contractors (percent of contract supply)
2018	Public health and safety needs or 75 percent of historical use, whichever is greater	50
2019	100 percent of historical use	75
2020	Public health and safety needs or 70 percent of historical use, whichever is greater	20

Notes:
M&I = Municipal and Industrial
Source: West Yost. 2021. Tracy Alliance Project Water Supply Assessment (prepared for the City of Tracy). December.

Central Valley Project Water Supply Reliability

In February 2017, new guidelines and procedures went into effect associated with the updated CVP M&I Water Shortage Policy. In general, the policy provides for the following:

- When M&I contractor allocations are at 100 percent, the allocation of M&I water will be based on Contract Total.
- When M&I contractor allocations are below 100 percent, the allocation of M&I water will be based on a contractor's historical use of CVP M&I water.
- An M&I contractor's historical use will be determined by calculating the average quantity of CVP water put to beneficial use within the service area during the last 3 years of water deliveries that were unconstrained by the availability of CVP water.

The City's reliability assumptions in the 2020 UWMP are sufficiently conservative to adhere to the 2017 guidelines. The City's CVP water single dry year reliability is based on adjusted historical use and provided in the 2020 UWMP and are assumed as 25 percent for M&I CVP water, and 0 percent for Ag CVP water. Similarly, the City's CVP water multiple dry year reliability is based on adjusted historical use and provided in the 2020 UWMP and are assumed as 40 percent for M&I CVP water, and 0 percent for Ag CVP water.

Surface Water from Byron-Bethany Irrigation District Pre-1914 Water Rights

Part of the proposed Tracy Hills Specific Plan area was annexed into the BBID and is entitled to water service from BBID, using BBID's pre-1914 appropriative water rights. This water is delivered to the City via the DMC and is treated at the JJWTP before delivery to the Tracy Hills Specific Plan area. The City anticipates that up to 4,500 AFY of pre-1914 water rights water could be provided by BBID on a year-round basis to serve the Tracy Hills Specific Plan in the BBID service area. However, the volume of water available to the City through this agreement is limited to the demand in the BBID service area portion of the Tracy Hills Specific Plan. The projected potable water demand in this area is estimated to be 3,330 AFY at buildout. Because the water supply is based on pre-1914 appropriative rights, the supply is firm and well-established. For purposes of this analysis and to ensure clarity with respect to the evaluation of water supply and demand, the Tracy Hills Specific Plan is referenced throughout this analysis because it is provided water from BBID, which does not provide water to the rest of the City.

Stanislaus River Water

The City receives Stanislaus River water, in partnership with the cities of Manteca, Lathrop and Escalon, and the SSJID. This partnership constructed the SCWSP, which consists of the Nick C. DeGroot Water Treatment Plant (DGWTP) near Woodward Reservoir in Stanislaus County and transmission pipelines to deliver treated surface water to each city. The SCWSP can deliver up to 36 mgd of treated water and its water supply source is based on SSJID's senior pre-1914 appropriative water rights to the Stanislaus River, coupled with an agreement with the USBR to store water in New Melones Reservoir.

As part of the SCWSP, the City was initially allocated up to 10,000 AFY of water based upon SSJID's senior water rights. In 2006, the City entered into a temporary contract with Escalon to purchase Escalon's allocation of 2,015 AFY of SCWSP supply until Escalon constructs the necessary infrastructure to convey the SCWSP water.[4] In August 2013, SSJID and the Cities of Tracy and Lathrop approved a Lathrop-Tracy Purchase, Sale and Amendment Agreement for the sale of a portion of the City of Lathrop's SCWSP supply and capacity to the City of Tracy. The agreement provides the City with an additional 1,120 AFY of SCWSP supply and 2 mgd of SCWSP capacity. Thus, the City's current contractual amount of SCWSP water is 13,135 AFY in total. Once the agreement with Escalon sunsets (anticipated to occur in 2025), the City's contractual allocation will be reduced to 11,120 AFY. This additional SCWSP supply has the same reliability as the City's original SCWSP supplies.

Treated water deliveries from the SCWSP commenced in July 2005, and deliveries have been essentially uninterrupted since then (see Exhibit 3.16-1). Although the City's full allocation was available in first few years, deliveries to the City were less than its allocation because the full allocation was not needed.

Because of the seniority of SCWSP's and SSJID's pre-1914 appropriative rights to Stanislaus River water, the City has historically assigned a high reliability to SCWSP water. However, in December 2018, the California State Water Resources Control Board (State Water Board) released proposed amendments to the Water Quality Control Plan for the San Francisco/Sacramento-San Joaquin Delta Estuary (Bay-Delta Plan Amendment) which included significant changes and could result in significant surface water cutbacks if ultimately adopted. In SSJID's 2020 UWMP, SSJID presented a water reliability analysis assuming that the Bay-Delta Plan Amendment will not be implemented given its uncertainties. As an SSJID retail agency customer, the City relies on SSJID for the reliability projections for the Stanislaus River water supply. Consistent with SSJID's approach, the City's 2020 UWMP assumes that the Bay-Delta Plan Amendment will not be implemented. However, to fully assess the potential impacts of the Bay-Delta Plan Amendment and better plan for the potential shortfalls, the City conducted a parallel set of reliability analyses assuming that the Bay-Delta Plan Amendment will be implemented and included it as Appendix G of its 2020 UWMP.[5]

Consistent with the City's 2020 UWMP and for the purposes of the WSA for the proposed project, the City is assumed to receive 100 percent of its SCWSP contractual entitlement in normal years. In future dry years, it is assumed that allocations would be based on the City's contractual entitlement,

[4] Escalon Amendment to Tracy-SSID Water Supply Development Agreement, March 2006.
[5] EKI Environmental and Water. June. 2020 Urban Water Management Plan (prepared for the City of Tracy), Section 7.1.1.3. 2021.

rather than consumption in a given year. Based on information received from SSJID, in single dry years, the City expects to receive 76 percent of its SCWSP water supply allocation during 2025, 2030, and 2035 and 56 percent during 2040 and 2045. In multiple dry years, the City expects to receive 56 to 100 percent of its SCWSP water supply allocation, depending on hydrological conditions. In addition, SCWSP water transferred from Escalon is assumed to be unavailable after 2025.

The anticipated availability and reliability of the SCWSP supply under normal years, single dry years, and multiple dry years may be revised based on updated evaluations in conjunction with resolution of issues associated with the Bay-Delta Plan Amendment. Further, SSJID anticipates the likelihood that more water will be available for local purposes in 2040 based on more efficient water management and urban development displacing irrigated agricultural land uses.[6]

Groundwater

The City's surface water supply is supplemented by local groundwater. The City overlies a portion of the San Joaquin Valley Groundwater Basin-Tracy Subbasin (Tracy Subbasin). The City currently operates nine groundwater wells, with a total extraction capacity of about 18,300 gallons per minute (gpm), or 26 mgd.[7] Four wells (Production Wells 1, 2, 3 and 4) are located near the City's JJWTP and pump directly into the JJWTP clear wells, where the groundwater is blended with treated surface water. The other wells (Lincoln Well, Lewis Manor Well [Well 5], Park and Ride Well [Well 6], Ball Park Well [Well 7], and Well 8) are located throughout the City and pump water directly into the distribution system after disinfection. The City's newest well, Well 8, located near the intersection of Tracy Boulevard and 6th Street, was designed as an ASR well, and has been put into service as an ASR well as permitted by the Central Valley Regional Water Quality Control Board (Central Valley RWQCB). Additional information about groundwater, including a basin description, groundwater management, groundwater yield, groundwater quality, historical groundwater use, projected future groundwater use, and groundwater sufficiency are provided in Section 3.10, Hydrology and Water Quality, as well as Appendix K.

Semitropic Groundwater Storage Bank

The City has acquired the rights to store and recover water in the Semitropic Groundwater Storage Bank (Semitropic) operated by the Semitropic Water Storage District (Semitropic WSD). The Semitropic facilities are in Kern County alongside the California Aqueduct and the DMC. The first phase of Semitropic was initiated in the early 1990s and established one million acre-feet of storage for a group of agencies referred to as the Original Banking Partners. In response to increased demand for banking capacity, up to 650,000 acre-feet of additional storage was created for the Stored Water Recovery Unit (SWRU). When an agency purchases storage capacity in Semitropic, it is able to recover the volume of water it has banked over a period of 3 consecutive years (i.e., 3,000 acre-feet equates to a maximum recovery rate of 1,000 AFY for 3 years).

The City originally entered into a pilot agreement with Semitropic WSD in June 2006 for 1,000 acre-feet of water storage in Semitropic's SWRU. The pilot agreement was intended to establish the procedures for water deposits and withdrawals by the City and was terminated when the permanent

[6] EKI Environmental and Water. June. 2020 Urban Water Management Plan (prepared for the City of Tracy), Section 7.1.1.2. 2021.

[7] GEI Consultants. 2015. Groundwater Assessment for Drought Emergency Conditions Requiring Groundwater to be Used as the Sole Source of Potable Water Supply (prepared for City of Tracy). August 10.

agreement was implemented. In 2012, the City entered into a long-term agreement with Semitropic WSD for up to 10,500 acre-feet of storage volume.[8] This storage agreement allows the City to withdraw up to 3,500 acre-feet of water annually for 3 years. To store water in Semitropic, the City withdraws less than its available allocation of CVP water from the DMC. This water travels through the DMC where it is diverted by Semitropic and used for local groundwater recharge. When the City wishes to withdraw water that it has banked previously, Semitropic arranges for the City to divert CVP water beyond its allocation from the DMC. This source of water is provided through either an exchange of Semitropic WSD's contractual entitlement to State Water Project (SWP) water or through direct "pump back" of stored groundwater into the California Aqueduct by Semitropic WSD.

Though the City could utilize this supply in any year, it is most valuable during extended drought years when the City's surface water supplies are reduced. The City anticipates that banking water at Semitropic will increase the reliability of the City's water supply and help close any potential future gap between supply and demand during drought conditions or other water supply shortage emergencies. If the City uses water from the Semitropic water bank in any given year, it would manage its supplies during subsequent years such that it could refill the water bank for future use. The City plans to actively maintain storage in Semitropic as feasible. As of December 2020, the City had 6,887 acre-feet of water in storage at Semitropic.

Aquifer Storage and Recovery

The City has been implementing an ASR Program to store surplus treated surface water in the confined aquifer beneath Tracy and extract that water to meet peak demands or supplement surface water sources during dry years. The City has one former groundwater extraction well, Well 8, which has been operated as an ASR well since 2013 after the successful demonstration of ASR feasibility.[9] Well 8 is located near the intersection of Tracy Boulevard and 6th Street and penetrates the Lower Tulare Formation.

The recharge water source of the City's ASR Program is treated SCWSP water.[10] The City's SCWSP water supply is of exceptionally high water quality, with a total dissolved solids (TDS) concentration of approximately 64 milligrams per liter (mg/L).[11] Since the TDS concentration of the recharge water source is much lower than that of the Lower Tulare Formation aquifer's native groundwater, operation of the City's ASR Program reduces the localized salinity of the aquifer, resulting in lower TDS content in water supplies extracted from Well 8 than would be expected in the absence of the ASR Program. Additionally, the reduced salinity in groundwater recovered from Well 8 results in lower salt loading at the City's Wastewater Treatment Plant (WWTP), which eventually reduces the salinity of effluent from the WWTP. This helps the City meet its RWQCB effluent salinity requirements and provides environmental benefits to the river ecosystems.

[8] City of Tracy. 2012 Agreement Between City of Tracy and Semitropic Water Storage District and Its Improvement Districts for Participation in the Stored Water Recovery Unit of the Semitropic Water Banking and Exchange Program. November.

[9] Central Valley Regional Water Quality Control Board (Central Valley RWQCB). 2013. Notice of Applicability for General Water Quality Order 2012-0010-DWQ-RB5S-0002, Aquifer Storage and Recovery Program, City of Tracy (Well No. 8), San Joaquin County. November 13.

[10] Per the terms of its agreement with the RWQCB, the City is not permitted to inject treated DMC/CVP at Well 8.

[11] City of Tracy. 2019. Water Quality Report.

Injection of SCWSP water into the ASR well occurs during the winter months (i.e., November through April), when City demands are low. Extraction occurs primarily in the summer months to meet increased demands associated with irrigation needs and as needed during droughts and water shortage emergencies. It is estimated that between 685 and 915 AFY of potable water could be injected into the aquifer, assuming a 5-month continuous injection rate of 1.5 to 2.0 mgd at Well 8. The City's strategic plan for ASR operations at Well 8 involves injecting up to 1,000 AFY over 6 months during the winter and extracting 75 percent of the injection volume during the following summer. These operations would result in net injection into the Lower Tulare Formation aquifer, which will gradually create a "buffer supply" that the City can utilize in dry years or during water shortage emergencies. In 2020, a net volume of approximately 190 acre-feet was injected and stored at Well 8 for the following year.

The City plans to implement its ASR Program stages as new ASR wells are constructed. The ASR supply will be available to meet demands in dry years, thereby increasing the reliability of the City's water supply during drought conditions or water shortage emergencies.

Recycled Water

The City has invested in infrastructure to produce and deliver recycled water. The City's WWTP has sufficient treatment capacity to produce approximately 9 mgd of tertiary-treated recycled water meeting the Title 22 requirements, which can be reused for landscape irrigation and other non-potable uses. The City's current recycled water system consists of a pump station at the WWTP and approximately 7.6 miles of recycled water transmission line from the WWTP west to Lammers Road and south to West Schulte Road. Currently the only service connection is for the Legacy Fields Sports Complex.

Planned Uses Within the Service Area

At this time, no recycled water is used within the City's service area. The City is planning to expand the existing recycled water system to serve future development areas, as well as a small number of existing parks and irrigated areas. New developments in the City are required to include recycled water distribution systems in accordance with the City's Recycled and Non-Potable Water Ordinance (Tracy Municipal Code, Chapter 11.30). The City's Department of Utilities and Development Services are coordinating planning efforts to connect existing water customers and new development to recycled water.

The City intends to expand the existing recycled water system to serve non-potable water demands in most of the new development areas. Recycled water is planned to be used at: (a) parks, sports fields, and other landscape areas; (b) industrial facilities such as the Tracy Power Plant; (c) fill stations for dust control during construction, street sweeping, and residential emergency landscape irrigation; and (d) the proposed lakes at Tracy Village. The future recycled water use was estimated to be 1,000 AFY in 2025, increasing to 6,300 AFY in 2045 as new development areas buildout, based on the adopted unit water demand factors and the future dwelling units or gross acreage.

Several future service areas already have recycled water distribution pipelines installed by developers, including Cordes Ranch, Ellis Specific Plan Phase 1, and Tracy Hills Phase 1. These pipelines are not yet connected to the recycled water mains, but instead are temporarily connected

to the potable water system to meet irrigation demands. Once recycled water system construction is complete and the appropriate permitting is completed, the pipelines will be connected to the recycled water system and the temporary connections to the potable water system will be removed.

City of Tracy Water Supply Summary

Table 3.16-2 summarizes the existing and additional planned future water supplies within the City of Tracy.

Table 3.16-2: Summary of Existing and Additional Planned Future Water Supplies

Supply	Water Supply Entitlement (AFY)	Supply Ever Used by City
Existing Water Supplies		
USBR CVP–Tracy Contract[(a)]	10,000	Yes
USBR CVP–BCID Contract[(b)]	5,000	Yes
USBR CVP–WSID Contract[(c)]	5,000	Yes
BBID (pre-1914)[(d)]	3,330	Yes
South County Water Supply Project (SSJID) (pre-1914)[(e)]	11,120	Yes
Groundwater[(f)]	9,000	Yes
Dry Year Supplies		
Semitropic Water Storage Bank[(g)]	3,500	Yes
Aquifer Storage and Recovery	1,000	Yes
Additional Planned Future Water Supplies		
Additional USBR CVP (BBID contract)[(h)]	—	No
Recycled Water Exchange (Potable)	7,500	No
Recycled Water (for non-potable uses)[(i)]	6,300	No

Notes:
AFY = acre-feet per year
BCID = Banta-Carbona Irrigation District
CVP = Central Valley Project
USBR = United States Bureau of Reclamation
WSID = West Side Irrigation District

(a) M&I-reliability CVP water. Assumes the terms of the long-term renewal contract with the USBR are consistent with those of the interim renewal contract entered into between the City and USBR in February 2016.
(b) In June 2001, the USBR approved the assignment of 5,000 AFY of BCID's contractual entitlement to Ag-reliability CVP water.
(c) In August 2001, the USBR approved the assignment of 2,500 AFY of WSID's contractual entitlement to Ag-reliability CVP water, with the option to purchase an additional 2,500 AFY in the future. In December 2013, the City and WSID approved the additional assignment; the City's current assignment of WSID CVP water is 5,000 AFY.
(d) The City anticipates that up to 4,500 AFY of BBID pre-1914 water will be available to serve the Tracy Hills Specific Plan development. This water is only available for use in the portion of Tracy Hills that lies within BBID Raw Water Service Area 2 the CVP Consolidated Place of Use, so the quantity of supply is limited to potable water demand in this area. Therefore, the maximum BBID supply delivered to this area is reduced to 3,330 AFY.
(e) Includes the 10,000 AFY allocation and the additional 1,120 AFY obtained through the 2013 Lathrop-Tracy Purchase,

Supply	Water Supply Entitlement (AFY)	Supply Ever Used by City
Sale, and Amendment Agreement. Does not include the interim purchase from Escalon. (f) The City can sustainably extract up to 9,000 AFY of groundwater on a continuous basis from the Tracy Subbasin. However, due to the aging infrastructure and water quality issues in the City's groundwater supplies, the City is projecting to be able to withdraw up to 2,500 AFY in normal years. During dry years, the City anticipates increasing its groundwater production on a short-term basis from the normal year production of 2,500 AFY to 4,500 AFY. (g) The City has purchased 10,500 acre-feet of water storage in the Stored Water Recovery Unit (SRWU), which allows the City to withdraw up to 3,500 AFY for 3 consecutive years. (h) While up to 8,800 AFY of BBID's Ag-reliability CVP water may be available as agricultural lands are converted to other uses, for purposes of water supply planning, the City assumes this supply will not be available. (i) Based on the total projected recycled water demand at buildout of the City. Source: EKI Environmental and Water. June. 2020 Urban Water Management Plan (prepared for the City of Tracy), Table 6-4. Summary of Existing and Additional Planned Future Water Supplies. 2021.		

Water Demand and Use

City of Tracy

Historical and Existing Water Demand

The City's water demand has increased significantly in the last 30 years. In 1986, the City's water demand was 8,104 AFY; by 2007, the City's water demand had increased to 19,176 AFY. In recent years, the City's water demand has decreased as a result of the economic downturn of 2008 through 2011 and water use reductions in response to recent drought conditions. Water demands have rebounded (increased) somewhat in recent years with the end of drought conditions along with increased development activity. Table 3.16-3 shows the City's water demand (based on water production) from 2012 to 2020.

Table 3.16-3: Historical Potable Water Demand

Condition	AFY								
	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total Water Demand	18,052	18,587	16,213	14,041	15,360	18,160	17,420	17,672	19,527

Notes:
AFY = acre-feet per year
Source: EKI Environment and Water. 2021. 2020 Urban Water Management Plan for the City of Tracy (prepared for the City of Tracy), Table 4-2 Current and Historical Potable Water Demand and Population June.

Future Water Demand

The City's water demand is anticipated to continue to increase as approved projects are constructed and new developments are approved and constructed in accordance with the General Plan within the City's water service area. However, the rate of growth within the City's water service area has slowed, reflecting the Growth Management Ordinance (adopted in 1987 and amended in 2000 by the voter-initiative Measure A) and the slow economic recovery from the economic downturn between 2008 and 2011. Hence, water demands are not anticipated to increase as rapidly as they have in past years.

The 2020 UWMP projects water demands for 2025, 2030, 2035, 2040, and 2045; these projections are, provided in Table 3.-16-4. The City's projected future water demand was determined based on adopted potable water use factors for various land uses, which were developed based on historical metered water use data and anticipated timing future development projects. Buildout of the proposed project is included in the 2040 and buildout (2045) water demand projections.

The water demand projections include consideration for reduced future water use as a result of new building codes, improved water use efficiency, and implementation of water conservation measures. The projections also include savings from passive conservation which refers to water savings resulting from actions and activities that do not depend on direct financial assistance or educational programs from the City. These savings result primarily from: (1) the natural replacement of existing plumbing fixtures with water efficient models required under current plumbing code standards, and (2) the installation of water efficient fixtures and equipment in new buildings and retrofits as required under the California Green Building Standards Code (CALGreen).

Table 3.16-4: Summary of Future Projected Water Production

	AFY				
Condition	**2025**	**2030**	**2035**	**2040**	**2045**
Potable Water Demand	20,509	23,100	25,738	28,403	33,079
Recycled Water Demand	1,000	2,067	3,133	4,200	6,300
Total Water Demand	**21,509**	**25,167**	**28,871**	**32,603**	**39,379**

Notes:
AFY = acre-feet per year
Source: EKI Environment and Water. 2021. 2020 Urban Water Management Plan for the City of Tracy (prepared for the City of Tracy), Table 4-2 Current and Historical Potable Water Demand and Population June.

Dry Year Water Demand

The City currently has a water conservation program in place, as described in Chapter 9 of the 2020 UWMP. The projected future water demand presented in Table 3.16-4 includes continued implementation of the City's existing water conservation program and is based on future normal hydrologic years. In the 2020 UWMP, the additional water conservation which may occur in single dry or multiple dry years, was not assumed to happen. This was a conservative assumption as additional water conservation would likely occur because of the City's implementation of additional water conservation measures as outlined in the City's Water Shortage Contingency Plan[12] in response to multiple dry years or other water supply shortages. The City's Water Shortage Contingency Plan includes shortage response actions to reduce water demand and manage supply for water shortage conditions of up to and greater than 50 percent.

[12] The City's Water Shortage Contingency Plan is incorporated into the Water Management Chapter of the Tracy Municipal Code Chapter 11.28 and Appendix H of the 2020 UWMP.

As shown in Table 3.16-3, the City's 2015 demand was significantly lower than 2014 demand in response to the Governor's April 2015 Executive Order B-29-15 mandating 25 percent water conservation Statewide. To reduce water use by 25 percent Statewide, the State Water Board adopted a regulation which placed each urban water supplier into one of eight tiers which were assigned a conservation standard, ranging between 4 percent and 36 percent. Each month, the State Water Board compared every urban water suppliers' water use with their use for the same month in 2013 to determine whether they were on track for meeting their conservation standard. The City was initially placed into Tier 7 with a water conservation standard of 28 percent as compared to 2013 use (the City's conservation standard was reduced to 25 percent in early 2016).

In response, the City Council authorized the implementation and amendment of the City's Phase III and IV water restrictions in June 2015 (as defined in Chapter 11.28 of the Tracy Municipal Code) to meet State Water Board emergency drought regulations. The City's water conservation efforts and results are an example of the City's ability to implement its Water Shortage Contingency Plan and reduce water demands in the event of an emergency water supply shortage. In May 2016, the City's water demand was 32.6 percent less than in May 2013, and the City's cumulative savings from June 2015 to May 2016 was 27.2 percent as compared to 2013, indicating the responsiveness of the City's residents to the call for water conservation.[13]

For purposes of the WSA, the City assumed that dry year potable water demand is the same as normal year demand.

Projected Future Groundwater Use

Table 3.16-5: City of Tracy Projected Future Groundwater Production in Normal and Dry Years

Condition	2025 (AFY)	2030 (AFY)	2035 (AFY)	2040 (AFY)	2045 (AFY)
Total Groundwater Production During a Normal Year[(a)]	2,500	2,500	2,500	2,500	2,500
Total Groundwater Production During Dry Years[(b)]	4,500	4,500	4,500	4,500	4,500

Notes:
AFY = acre-feet per year
Source:
(a) EKI Environment and Water. 2021. 2020 Urban Water Management Plan for the City of Tracy (prepared for the City of Tracy), Table 7-2 Projected Water Supply in Normal Years. June.
(b) EKI Environment and Water. 2021. 2020 Urban Water Management Plan for the City of Tracy (prepared for the City of Tracy), Section 7.1.2.2 and Section 7.1.2.3. June

The City may sustainably pump up to 9,000 AFY from the local groundwater basin. Since the hard, high TDS groundwater is of lower quality than the City's surface water sources, the City has scaled

[13] California State Water Resources Control Board (State Water Board). 2021. Water Conservation and Production Reports (data from June 21, 2016). Website: https://www.waterboards.ca.gov/water_issues/programs/conservation_portal/conservation_reporting.html. Accessed: January 27, 2021.

back its groundwater extraction in most years. However, the City will continue to rely on groundwater for peaking and drought and emergency water supply. Table 3.16-5 shows the anticipated future groundwater production during a normal year and during dry years.

As can be seen in Table 3.16-5, the City anticipates that total extraction during a normal year will be 2,500 AFY through the planning horizon. By reducing groundwater extraction on an average annual basis, the City will: (1) increase the overall quality of its drinking water, thus increasing customer satisfaction and reducing system maintenance and repair caused by the lower-quality groundwater; and (2) recharge the underlying aquifer, effectively increasing the availability of groundwater during a drought or emergency condition (i.e., effectively "banking" groundwater). At the production volumes shown in Table 3.16-5, the City's groundwater supplies are considered to be 100 percent reliable.

The projected uses of groundwater during droughts are consistent with the City's Groundwater Management Policy.[14] In the event that the City is unable to secure additional high-quality surface water supplies in the future, the City is able to expand groundwater production up to 9,000 AFY. In the event of a severe water supply shortage or emergency, the City has the ability to increase production dramatically, up to 22,000 AFY.

Project Site

In November 2020, a Technical Memorandum was prepared by West Yost Associates to summarize the findings of a hydraulic evaluation for the proposed project; the Technical Memorandum is included in Appendix K. For the purposes of the hydraulic evaluation, potable water was conservatively assumed to be used to meet all of the proposed project's water demands, including both potable and non-potable, since recycled water infrastructure has yet to be constructed. Table 3.16-6 provides a summary of the proposed project's water use factors and projected potable water use.

Table 3.16-6: Estimated Annual Water Demand for the Proposed Project

Land Use Designation	Total Area (gross acres)[(a)]	Potable Water Use Area (acres)[(b)]	Landscaped area (acres)[(c)]	Unit Potable Water Use Factors (acre-feet per acre per year)	Annual Potable Water Use (AFY)
Industrial	191.2	162.5	—	1.3	211.3
Irrigation Demand	—	—	28.7	1.9	54.5
UAFW[(d)]	—	—	—	—	28.2
Total	191.2	162.5	28.7	—	294

[14] Pacific Municipal Consultants (PMC). 2011. Groundwater Management Policy Mitigated Negative Declaration (prepared for City of Tracy.) December 7.

Land Use Designation	Total Area (gross acres)[(a)]	Potable Water Use Area (acres)[(b)]	Landscaped area (acres)[(c)]	Unit Potable Water Use Factors (acre-feet per acre per year)	Annual Potable Water Use (AFY)

Notes:
AFY = acre-feet per year
UAFW = Unaccounted for Water
(a) City's NOP of an EIR and Public Scoping Meeting for the Tracy Alliance Project dated August 28, 2020.
(b) 85 percent of gross acres are assumed to use potable water.
(c) 15 percent of gross acres are assumed to be landscaped.
(d) UAFW is equal to 9.6 percent.
Source: West Yost. 2021. Tracy Alliance Project Water Supply Assessment (prepared for the City of Tracy). January.

As shown above, projected water demands for buildout of the proposed project total approximately 294 AFY, of which approximately 211 AFY is industrial demand, approximately 55 AFY is irrigation demand, and approximately 28 AFY is unaccounted for water.

Water Infrastructure and Distribution

City of Tracy

The City provides water service to all the water users within the city limits and some areas within the SOI. For the properties within the SOI that the City does not serve, water is supplied through various agreements. The City's water service area is coterminous with the existing city limits. As future developments within the SOI, but outside the city limits, are approved, they will be annexed into the City upon LAFCo approval and served by the City's water supply. Figure 7.2 of the 2020 UWMP depicts the existing water distribution infrastructure serving the City. According to the 2020 UWMP, water is distributed to the City via supply lines located on the western side of the City.

Project Site

A 12-inch water line is located within Paradise Road.

Wastewater

City of Tracy

The City of Tracy's wastewater collection system consists of gravity sewer lines, pump stations, and force mains. The City's wastewater flows toward the northern part of the City where it is treated at the WWTP located just north of I-205 before being discharged into Old River, which is a distributary channel of the Southern Sacramento-San Joaquin Delta.

Project Site

An existing 15-inch wastewater line runs beneath Paradise Road and an existing 10-inch sanitary sewer line is located within Grant Line Road, part of the City's sanitary sewer system operated by the Public Works Department.[15]

[15] De Novo Planning Group. 2019. Tracy Municipal Services Review. July.

Wastewater Generation

City of Tracy

The City projects an increase in residential, commercial, and industrial developments within its SOI, requiring expansion of its existing wastewater conveyance and treatment infrastructure.

Project Site

The project site is in the East Side Industrial future service area, within the City's SOI. Industrial operations are expected to produce approximately 1,500 gallons per day, per acre (gpd/ac).[16] Given the proposed uses and the approximately 191.2-acre size of the project site, the amount of wastewater to be produced by the proposed project would be approximately 286,500 gpd.[17]

Wastewater Treatment

City of Tracy

The WWTP, which was upgraded in 2008, is located between MacArthur Drive and Holly Drive just north of I-205. The National Pollutant Discharge Elimination System (NPDES) permit, CA 0079154, allows for discharge of 10.8 mgd, and up to 16 mgd if applicable treatment facilities are constructed. The WWTP provides disinfected tertiary level treatment meeting Title 22 requirements of the Code of Regulations from the State Water Board. The WWTP includes primary clarifiers, activated sludge, secondary clarifiers, flocculation, tertiary filtration, and disinfection.

Project Site

No wastewater treatment currently occurs on-site.

Stormwater

Generation and Infrastructure

City of Tracy

The City's Public Works Department and the WSID manage Tracy's storm drainage system. The City and entire SOI is confined to the following five watersheds:

- Eastside Channel Watershed
- Westside Channel Watershed
- Lanners Watershed
- Mountain House Watershed
- Tracy Hills Watershed

Stormwater drains through open channels, storm drains, and closed conduits that are owned, operated, and maintained by the City and the WSID. The majority of the City's stormwater management systems are gravity fed; however, pump stations are utilized to carry water over grades. Stormwater is discharged into Old River on the northern side of I-205 from four outfalls: (1) Sugar Cut, (2) 18-inch Storm Drain Force Main (Lammers Road), (3) West Side Irrigation distort (WSID) Main Drain, and (4) Patterson Run. Some of the developed areas within the SOI are not presently

[16] CH2MHill. 2012. Draft Wastewater Master Plan Update, Table ES-1, December.
[17] 191ac x 1500 gpd/ac = 286,500 gpd.

connected to facilities that drain to any of the above outfalls and are currently draining to temporary retention ponds until future facility connections are funded and constructed.

The project site lies within the Eastside Channel Watershed, which is the easternmost watershed in the SOI and is roughly 9.8 square miles in overall area, including minor existing developed areas in the County outside the SOI. The Eastside Channel Watershed can generally be characterized as encompassing roughly the east half of the developed area of the City, plus additional undeveloped areas extending as far south as Linne Road, as far east as Banta Road and as far north as Arbor Avenue. It includes the majority of the City's downtown area, several Residential Specific Plan (RSP) subdivisions, the South MacArthur Subbasin, the Rocha future service area, the Chrisman Road future service area, the UR1 future service area, core residential and industrial areas north and east of the downtown area, the Northeast Industrial (NEI) Specific Plan area, industrial developments north of I-205, the majority of the Larch Clover area, the East Side Industrial future service area, and other existing and proposed development areas.

Project Site

There are no existing stormwater drainage facilities on or near the project site. The project site drains generally toward the northeast toward I-205 and into Pescadero Irrigation District facilities; this stormwater does not currently enter into a City-maintained facility. The proposed project includes an on-site stormwater detention basin (DET 16) that is to be constructed on the northeast corner of the project site (see Exhibit 3.10-1 in Section 3.10, Hydrology and Water Quality).

Stormwater Treatment

City of Tracy

Stormwater runoff from the City is transported northward to four discharge points located on Old River, where it is treated and released. The State of California requires small communities to implement development standards to protect water quality under the "General Permit for Waste Discharge Requirements for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4s) Order No. 2013-0001-DWQ."[18] These requirements are an extension of similar requirements imposed on larger communities (e.g., the Cities of Stockton, Modesto, and parts of the County of San Joaquin.) The development standards, also known as post-construction stormwater requirements, will become part of every regulated community's development process.

The Cities of Lathrop, Lodi, Manteca, Patterson, Tracy, and San Joaquin County (Partners) collaborated to develop a Multi-Agency Post-Construction Standards Manual to meet the MS4 permit requirement. This multi-agency manual provides consistent guidance for developers and builders working in the region as well as agency staff. Stakeholders from the development community were involved in the development of the Multi-Agency Post-Construction Standards Manual, which was completed and adopted by the City of Tracy in August 2015.

[18] National Pollutant Discharge Elimination System (NPDES). 2013. General Permit for Waste Discharge Requirements (WDRs) for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4s). Website: https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2013/wqo2013_0001dwq.pdf. Accessed: December 15, 2020.

Solid Waste

Solid Waste Collection

City of Tracy

The City has a franchise agreement with Tracy Delta Solid Waste Management, Inc. for the collection, transportation, and disposal of refuse and garbage, including the collection of recyclable material and yard waste.[19] The City Public Works Department provides solid waste and recycling services for areas within city limits and certain surrounding County areas.

The Public Works Department has a partnership with Tracy Disposal Service Company to provide residential and commercial solid waste collection and disposal, including recycling and organics services.[20,21] Garbage is collected once a week and recycling and yard waste are collected on alternating weeks.[22]

Project Site

Currently, the project site generates minimal solid waste, which is collected by the Tracy Delta Solid Waste Management, Inc.

Solid Waste Generation

City of Tracy

The City generated approximately 103,648 tons of solid waste in 2019, the most recent year with data available.[23]

Project Site

Only one of the existing homes is occupied and produces a minimal amount of solid waste.

Solid Waste Disposal

City of Tracy

The City's solid waste is taken to the Tracy Material Recovery Facility and Solid Waste Transfer (MRF) Station on South MacArthur Drive before being sent to the Foothill Sanitary Landfill on North Waverly Road, east of the City. The MRF has a daily intake capacity of approximately 1,800 tons of solid waste per day. The permitted capacity of the Foothill Landfill is 138 million cubic yards, and the facility currently has capacity to accommodate 125 million cubic yards of solid waste. Current permits indicate a closure in 2082.[24]

[19] City of Tracy. 2020. Garbage and Recycling Schedule. Website: https://www.ci.tracy.ca.us/?navId=700. Accessed April 23, 2020.
[20] City of Tracy. 2020. Recycling and Solid Waste. Website: https://www.ci.tracy.ca.us/?navId=688. Accessed April 9, 2020.
[21] Tracy Delta Solid Waste Management, Inc. Website: https://www.tdswm.com/. Accessed April 9, 2020.
[22] City of Tracy. 2020. Garbage and Recycling Schedule. Website: https://www.ci.tracy.ca.us/?navId=700. Accessed April 16, 2020.
[23] California Department of Resources Recycling and Recovery (CalRecycle). 2019. Disposal Rate Calculator: Jurisdiction Review Reports. Website: https://www2.calrecycle.ca.gov/LGCentral/AnnualReporting/DisposalRateCalculator. Accessed December 15, 2020.
[24] California Department of Resources Recycling and Recovery (CalRecycle). 2019. SWIS Facility/Site Activity Details: Foothill Sanitary Landfill (39-AA-0004). Website: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1424?siteID=3097. Accessed December 15, 2020.

Project Site

Solid waste generated on the project site would be conveyed to Tracy MRF and eventually the Foothill Landfill by Tracy Delta Solid Waste Management.

Energy

The Pacific Gas and Electric Company (PG&E) provides natural gas and electricity services to the City of Tracy. PG&E provides natural gas and electric to approximately 15 million people throughout a 70,000-square-mile service area in northern and central California. PG&E produces or buys its energy from a mix of conventional and renewable generating sources, which travel through our electric transmission and distribution systems to reach customers.

Electricity

PG&E, which is regulated by the California Public Utilities Commission (CPUC), provides electricity to all or part of the 47 counties in California, including San Joaquin County. PG&E charges connection and user fees for all new development and sliding use-based rates for electrical and natural gas service. PG&E-owned generating facilities include nuclear, natural gas, and hydroelectric.

Natural Gas

PG&E provides natural gas to all or part of 39 counties in California comprising most of the northern and central portions of the State. PG&E obtains most of its natural gas supplies from western Canada and the balance from U.S. sources. PG&E operates approximately 49,100 miles of transmission and distribution pipelines and three underground storage fields with a combined storage capacity of approximately 48.7 billion cubic feet.

Electricity and Natural Gas Infrastructure, Demand, and Use

City of Tracy

Electricity and Natural Gas is provided to the City via distribution lines and infrastructure maintained by PG&E. As individual customers request electrical and/or natural gas service, all energy conservation programs, and energy management programs are offered. Additionally, PG&E reviews applications prior to development entitlement to identify the necessary utility easements for provision of gas and electric service.

Project Site

The project site currently contains overhead power lines; as described more fully in the site plan for the Tracy Alliance parcels, certain of these existing lines would be undergrounded as part of project implementation. Natural gas infrastructure would be provided to the project site and would be installed with connections to existing lines located in Grant Line Road on the south side of the project site.

Telecommunications

Telecommunication services include telephone service (both landlines and mobile service) and internet service for businesses and homes.

City of Tracy

Telecommunications in the City are provided by AT&T, Xfinity, Comcast, Verizon, as well as various local providers.

Project Site

If the project site utilizes telecommunications, it would be at the discretion of the project site owners to contract with telecommunications companies for service. The proposed project would not require the relocation or expansion of telecommunications infrastructure, because it would be served by local telecommunications providers with adequate telecommunications capacity and access. Any telecommunications lines would be constructed within Paradise Avenue and Grant Line Road, similar to other dry utilities.

3.16.3 - Regulatory Framework

Federal

Safe Drinking Water Act

The Safe Drinking Water Act authorizes the United States Environmental Protection Agency (EPA) to establish national standards for drinking water, called the National Primary Drinking Water Regulations, to protect against both naturally occurring and man-made contaminants. These standards set enforceable maximum contaminant levels in drinking water and require all water providers in the United States to treat water to remove contaminants, except for private wells serving fewer than 25 people. In California, the State Department of Health Services conducts most enforcement activities.

Clean Water Act (National Pollutant Discharge Elimination System)

The Water Pollution Control Act of 1972, more commonly known as the Clean Water Act (CWA), regulates the discharge of pollutants into watersheds throughout the nation. Under the CWA, the EPA implements pollution control programs and sets wastewater standards.

The NPDES permit program was established within the CWA to regulate M&I discharges to surface waters of the United States. Federal NPDES permit regulations have been established for broad categories of discharges, including point-source municipal waste discharges and nonpoint-source stormwater runoff. NPDES permits generally identify effluent and receiving water limits on allowable concentrations and/or mass emissions of pollutants contained in the discharge; prohibitions on discharges not specifically allowed under the permit; and provisions that describe required actions by the discharger, including industrial pretreatment, pollution prevention, self-monitoring, and other activities. Wastewater discharge is regulated under the NPDES permit program for direct discharges into receiving waters and by the National Pretreatment Program for indirect discharges to a sewage treatment plant.

State

California Porter-Cologne Water Quality Control Act

Under the Porter-Cologne Water Quality Control Act, which was passed in California in 1969, the State Water Board has the ultimate authority over State water rights and water quality policy. Porter-

Cologne also establishes nine RWQCBs to oversee water quality on a day-to-day basis at the local and regional level. The RWQCBs engage in a number of water quality functions in their respective regions and regulate all pollutant or nuisance discharges that may affect either surface water or groundwater.

California Urban Water Management Planning Act

The Urban Water Management Planning Act (California Water Code Sections 10610–10656) requires that all urban water suppliers with at least 3,000 customers prepare UWMPs and update them every 5 years. The Act requires that UWMPs include a description of water management tools and options used by that entity that will maximize resources and minimize the need to import water from other regions. Specifically, UWMPs must:

- Provide current and projected population, climate, and other demographic factors affecting the supplier's water management planning;
- Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier;
- Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage;
- Describe plans to supplement or replace that source with alternative sources or water demand management measures;
- Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis (associated with systems that use surface water);
- Quantify past and current water use;
- Provide a description of the supplier's water demand management measures, including schedule of implementation, program to measure effectiveness of measures, and anticipated water demand reductions associated with the measures; and
- Assess the water supply reliability.

The 2020 UWMP was adopted in June 2021 and includes projections of water demand and supply through 2045.

California Health and Safety Code

Section 64562 of the California Health and Safety Code establishes water supply requirements for service connections to public water systems. Before additional service connections can be permitted, enough water must be available to the public water system from its water sources and distribution reservoirs to adequately, dependably, and safely meet the total requirements of all water users under maximum-demand conditions.

California Senate Bill 610 and 221

SB 610 amended State law, effective January 1, 2002, to improve the link between information on water supply availability and certain land use decisions made by cities and counties. SB 610 and SB 221 (described further below) seek to promote more collaborative planning between local water

suppliers and cities and counties by requiring detailed information regarding water availability be provided to decision-makers prior to approval of specified large development projects. For those projects that are covered under SB 610 and otherwise subject to CEQA, this law requires that detailed information be included in a WSA, which is then included in the CEQA document and the related administrative record that serves as the evidentiary basis for an approval action by a city or county. The purpose to this coordination is to ensure that prudent water supply planning has been conducted, and that the water purveyor's projected water supplies are adequate during normal, single-dry and multiple-dry years during a 20-year period to meet the projected water demand associated with a proposed development project, in addition to the water purveyor's existing and planned future uses. SB 610 amended California Water Code (Water Code) Sections 10910 through 10915 (inclusive) to require land use lead agencies to:

- Identify any public water purveyor that may supply water for a proposed development project; and
- Request a WSA from the identified water purveyor for all projects that are subject to SB 610 pursuant to Water Code Section 10912(a).

The purpose of the WSA is to demonstrate the sufficiency of the purveyor's water supplies to satisfy the water demands of a project, while still meeting the water purveyor's existing and planned future uses. Water Code Sections 10910 through 10915 delineate specific information that must be included in a WSA, which is then included in the CEQA document for consideration by the decision-makers.

- **Water Code Section 10910 (a):** Any city or county that determines that a project, as defined in Section 10912, is subject to CEQA (Division 13 [commencing with Section 21000] of the Public Resources Code) under Section 21080 of the Public Resources Code shall comply with this part.
- **Water Code Section 10912 (a):** "Project" means any of the following:
  (1) A proposed residential development of more than 500 dwelling units.
  (2) A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.
  (3) A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space.
  (4) A proposed hotel or motel, or both, having more than 500 rooms.
  (5) A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.
  (6) A mixed-use project that includes one or more of the projects specified in this subdivision.
  (7) A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500-dwelling unit project.

Based on the following facts, according to Water Code Section 10910(a), SB 610 applies to the proposed project and a WSA is required because:

- The City has determined that the proposed project is subject to the CEQA and that an EIR is required.
- The proposed project, with more than 40 acres of industrial land use, meets the definition of a "Project" as specified in Water Code Section 10912(a) paragraph (5) as defined for an industrial development.

The proposed project has not been the subject of a previously adopted WSA and has not been included in an adopted WSA for a larger project.

California Senate Bill 221

In 2001, SB 221 amended State law to require that approval by a city or county of certain residential subdivisions requires an affirmative written verification of sufficient water supply. Per California Government Code Section 66473.7(a)(1), a subdivision means a proposed residential development of more than 500 dwelling units. As the proposed project does not include residential development, it is not subject to the requirements of SB 221.

California Water Conservation Act

The California Water Conservation Act (SB X7-7) was enacted in November 2009 and requires each urban water supplier to select one of four water conservation targets contained in California Water Code Section 10608.20 with the Statewide goal of achieving a 20 percent reduction in urban per capita water use by 2020. Under SB X7-7, urban retail water suppliers are required to develop water use targets and submit a water management plan to the California Department of Water Resources (DWR) by July 2011. The plan must include the baseline daily per capita water use, water use target, interim water use target, and compliance daily per capita water use.

California Model Water Efficient Landscape Ordinance

The Model Water Efficient Landscape Ordinance was adopted by the Office of Administrative Law in September 2009 and requires local agencies to implement water efficiency measures as part of their review of landscaping plans. Local agencies can either adopt the Model Water Efficient Landscape Ordinance or incorporate provisions of the ordinance into code requirements for landscaping. Governor Brown's Drought Executive Order of April 1, 2015 (EO B-29-15) directed DWR to update the State's Model Water Efficient Landscape Ordinance (Ordinance) through expedited regulation. The California Water Commission approved the revised Ordinance on July 15, 2015.

New development projects that include landscape areas of 500 square feet or more are subject to the Ordinance. This applies to residential, commercial, industrial, and institutional projects that require a permit, plan check, or design review. The previous landscape size threshold for new development projects ranged from 2,500 square feet to 5,000 square feet. The size threshold for existing landscapes that are being rehabilitated has not changed, remaining at 2,500 square feet. Only rehabilitated landscapes that are associated with a building or landscape permit, plan check, or design review are subject to the Ordinance.

Groundwater Management Act

The 1992 Groundwater Management Act, Assembly Bill (AB) 3030, established provisions by which local water agencies could develop and implement Groundwater Management Plans (GMP). GMPs are generally designed to prevent local and regional aquifer overdrafting, which reduces available groundwater resources and which, under certain conditions, can lead to degradation of water quality and to land subsidence. The City has been, and continues to be, involved in both regional and local groundwater management efforts.

Sustainable Groundwater Management Act

On August 29, 2014, the California Legislature passed comprehensive groundwater legislation contained in SBs 1168 and 1319, and AB 1739, which are collectively referred to as the Sustainable Groundwater Management Act (SGMA). This legislation was signed by Governor Brown on September 16, 2014, and it became effective on January 1, 2015. The legislative intent of SGMA is to provide sustainable management of groundwater basins, enhance local management of groundwater, establish minimum standards for sustainable groundwater management, and provide local groundwater agencies with the authority and the technical and financial assistance necessary to sustainably manage groundwater.

The Tracy Subbasin is designated by DWR as a medium priority basin. As such, the Tracy Subbasin is subject to the requirements of SGMA, which include the formation of one or more Groundwater Sustainability Agencies (GSAs) and the development and implementation of one or more Groundwater Sustainability Plans (GSPs) by January 31, 2022. The GSA adopted the Final Tracy Subbasin Groundwater Sustainability Plan (Final GSP) on January 31, 2022. DWR has up to 2 years to review the GSP.[25]

Originally, the Tracy Subbasin contained areas of San Joaquin, Contra Costa and Alameda Counties. A grant application from the DWR was submitted by the City of Brentwood on December 27, 2018, on behalf of the original Tracy Subbasin. This application included funds to develop the San Joaquin County portion of the GSP. After the grant award, the Contra Costa County area was removed from the Tracy Subbasin, while the City of Lathrop was added, forming the new Tracy Subbasin boundary. The BBID, City of Tracy, City of Lathrop, Stewart Tract, West Side Irrigation District, and San Joaquin County are GSAs within the new Tracy Subbasin. The GSAs recognize that developing and adopting a single GSP for the subbasin would be the most efficient way of achieving sustainability and preventing State intervention into local groundwater management.

Working with San Joaquin County and the Tracy Subbasin GSAs, a Memorandum of Agreement (MOA) was negotiated and signed, covering the development of the San Joaquin County GSP for the Tracy Subbasin. Under the terms of the MOA, San Joaquin County is designated as the lead entity to enter into an agreement with the City of Brentwood to coordinate the allocation of grant funds.

[25] Tracy Subbasin. 2022. News Resources. January 21. Website: https://tracysubbasin.org/resources/. Accessed.: February 22, 2022.

Groundwater Management Plan for the Northern Agencies in the Delta-Mendota Canal Service Area and a Portion of San Joaquin County

In 1996, the City adopted the Northern Delta-Mendota Canal Groundwater Management Plan[26] (1996 GMP) pursuant to Water Code Sections 10750 *et seq*., also known as AB 3030. The 1996 GMP was developed in coordination with other DMC northern agencies, including: BCID, BBID, Del Puerto Water District, Patterson Irrigation District, WSID, San Joaquin County, and the City of Tracy. The 1996 GMP included information on groundwater levels and quality, conjunctive management of groundwater and surface water resources, and measures to protect groundwater resources within the plan area.

In 2011, the GMP was revised to include additional information to comply with new provisions adopted by the State Legislature which included:

- The DWR to establish a priority schedule for monitoring groundwater basins and elevation reports as well as issuing recommendations to local entities to improve water quality.
- The State to allow local entities to determine best methods of groundwater monitoring to meet local demand.
- The DWR to implement groundwater monitoring if local agencies fail to do so. This will result in loss of eligibility for State grant funds.

A public hearing regarding the revised 1996 GMP was held on February 7, 2012. The revised 1996 GMP was adopted by the Tracy City Council on May 1, 2012.

California Integrated Waste Management Act

To minimize the amount of solid waste that must be disposed of by transformation and land disposal, the State Legislature passed AB 939, the California Integrated Waste Management Act of 1989 (AB 939), effective January 1990. The legislation required each local jurisdiction in the State to set diversion requirements of 25 percent in 1995 and 50 percent in 2000; established a comprehensive Statewide system of permitting, inspections, enforcement, and maintenance for solid waste facilities; and authorized local jurisdictions to impose fees based on the types or amounts of solid waste generated. In 2007, amendments to the California Integrated Waste Management Act introduced a new per capita disposal and goal measurement system that moves the emphasis from an estimated diversion measurement number to using an actual disposal measurement number as a per capita disposal rate factor. As such, the new disposal-based indicator (pounds per person per year) uses only two factors: a jurisdiction's population (or in some cases employment) and its disposal as reported by disposal facilities.

California Public Utilities Commission

The CPUC regulates privately owned telecommunication, electric, natural gas, water, railroad, rail transit, and passenger transportation companies. It is the responsibility of the CPUC to (1) assure California utility customers safe, reliable utility service at reasonable rates; (2) protect utility

[26] Stoddard & Associates. 1996. Groundwater Management Plan for the Northern Agencies in the Delta-Mendota Canal Service Area and a Portion of San Joaquin County. April.

customers from fraud; and (3) promote a healthy California economy. The Public Utilities Code, adopted by the legislature, defines the jurisdiction of the CPUC.

Title 24, California's Energy Efficiency Standards for Residential and Nonresidential Buildings

Title 24, Part 6, of the California Code of Regulations establishes California's Energy Efficiency Standards for Residential and Nonresidential Buildings (Standards). The 2019 Standards continue to improve upon the previous Standards for new construction of and additions and alterations to, residential and nonresidential buildings. The effective date of the 2019 Standards is January 1, 2020. For nonresidential buildings, the Standards establish minimum energy efficiency requirements related to building envelope, mechanical systems (e.g., heating, ventilation, and air conditioning [HVAC] and water heating systems), indoor and outdoor lighting, and illuminated signs.

Regional

Tracy Regional Groundwater Management Plan (Regional Groundwater Management Plan)

In addition to participating in the development of the Tracy Subbasin GMP, in 2005, the City was awarded a DWR grant for approximately $185,000 to prepare a Tracy Regional Groundwater Management Plan (Tracy Regional GMP) for the portion of the Tracy Subbasin that underlies the City. The Tracy Regional GMP was completed in March 2007. A key objective of the Tracy Regional GMP was the development of Basin Management Objectives (BMOs) for groundwater levels, groundwater quality, and land subsidence in the region.

Local

City of Tracy

General Plan

The General Plan sets forth the following goals, policies, and programs related to utilities and service systems.

Public Facilities and Services Element

Goal PF-5: Reduction in the volume of solid waste.

Objective PF-5.1: Reduce volumes of solid waste generated in Tracy through recycling and resource conservation.

Policies

Policy P1 Promote redesign, reuse, composting and shared producer responsibility of discarded materials.

Policy P5 Salvage and reuse of construction and demolition materials and debris is encouraged at all construction projects within the City.

Policy P8 Residential, industrial, commercial, and retail buildings should be designed or improved to accommodate an increase in the amount and type of recycled materials.

Objective PF-5.2: Ensure adequate solid waste collection and disposal.

Goal PF-6: Adequate supplies of water for all types of users.

Objective PF-6.1: Ensure that reliable water supply can be provided within the City's service area, even during drought conditions, while protecting the natural environment.

Policies

Policy P4 The City shall establish water demand reduction standards for new development and redevelopment to reduce per capita and total demand for water.

Objective PF-6.3: Promote coordination between land use planning and water facilities and service.

Policies

Policy P2 New developments shall dedicate land for utility infrastructure such as treatment facilities, tanks, pump stations and wells as needed to support the development of their project.

Policy P3 The City shall be responsible for construction of new transmission water lines, as needed to meet future needs. Individual development projects shall be responsible for the construction of all water transmission means.

Policy P4 All new water facilities shall be designed to accommodate expected capacity for buildout of areas served by these facilities but may be constructed in phases to reduce initial and overall costs.

Policy P5 The availability of sufficient, reliable water shall be taken into account when considering the approval of new development.

Policy P6 Costs for water service expansion shall be distributed among new water users fairly and equitably.

Objective PF-6.5: Use recycled water to reduce non-potable water demands whenever practicable and feasible.

Policies

Policy P2 Recycled water piping systems ("purple pipe") shall be constructed as appropriate in all new development projects to facilitate the distribution and use of recycled water. The specific location and size of the recycled water systems shall be determined during the development review process.

Policy P4 The City shall plan for recycled water infrastructure in the City's Infrastructure Master Plans and, to the extent feasible, recycled water should be utilized for non-potable uses, such as landscape irrigation, dust control, industrial uses, cooling water and irrigation of agricultural lands.

Goal PF-7: Meet all wastewater treatment demands and federal and State regulations.

Objective PF-7.1. Collect, transmit, treat, and dispose of wastewater in ways that are safe, sanitary, and environmentally acceptable.

Policies

Policy P3 New habitable structures located within the city limits shall connect to public wastewater collection system.

Objective PF-7.3. Promote coordination between land use planning and wastewater conveyance, treatment, and disposal.

Policy P1 Wastewater collection and treatment facilities shall be designed to serve expected buildout of the areas served by these facilities but constructed in phases to reduce initial and overall costs.

Policy P2 The City shall construct new wastewater trunk lines as needed. Individual development projects shall be responsible for construction of all collection lines other than trunk lines.

Policy P3 The approval of new development shall be conditioned on the availability of sufficient capacity in the wastewater collection and treatment system to serve the project.

Policy P5 New development shall fully fund the cost of new wastewater treatment and disposal facilities.

Policy P6 Prior to any development approvals within an Urban Reserve, the City shall complete new wastewater master planning and wastewater treatment and disposal studies, particularly for the west side of the City. These studies are to be funded by proponents of new development and must show how adequate wastewater treatment will be provided to the Urban Reserve in question.

Objective PF-7.4. Pursue innovative solutions for wastewater treatment and disposal that are compatible with the environment.

Policies

Policy P3 Biosolid disposal shall be managed so as to minimize impacts to the environment and public health.

Policy P4 The City shall establish wastewater treatment demand reduction standards for new development and redevelopment to reduce per capita and total demand for wastewater treatment.

Goal PF-8: Protect property from flooding.

Objective PF-8.1. Collect, convey, store, and dispose of stormwater in ways that provide an appropriate level of protection against flooding, account for future development and address applicable environmental concerns.

Policies

Policy P1 Stormwater infrastructure shall be maintained in good condition.

Policy P2 Stormwater infrastructure shall minimize local flooding by attaining capacity that conforms with the Storm Drainage Master Plan and City Design Standards.

Policy P3 New permanent stormwater infrastructure shall be designed to serve dual purposes to the extent possible. This includes the following:

- Drainage facilities integrated into recreation corridors with bike paths, sidewalks, and landscaping.
- Drainage channel integrated with transportation and environmental corridors.
- Stormwater detention basins shall incorporate active and passive recreation areas where feasible. These areas shall not count toward parks dedication requirements.

Policy P5 The City shall ensure a fair and equitable distribution of costs for stormwater system upgrades, expansion, and maintenance.

Policy P6 Design of storm drainage facilities shall be consistent with State and federal requirements, including NPDES requirements.

Policy P7 Planning for stormwater facilities should consider possible future retrofitting needs associated with changing regulations pertaining to stormwater quality, including NPDES requirements.

Objective PF-8.2. Provide effective storm drainage facilities for development projects.

Policies

Policy P1 To the extent feasible, new development projects shall incorporate methods of reducing storm runoff within the project to reduce the requirements for downstream storm drainage infrastructure and improve stormwater quality.

Policy P2 New storm drainage facilities shall meet adopted City standards, including the standards and policies contained in the Storm Water Management Plan, the Storm Drainage Master Plan, and the Parkways Design Manual.

Policy P3 New development projects shall only be approved if necessary, stormwater infrastructure is planned and is in compliance with environmental regulations.

Policy P4 If sufficient downstream stormwater infrastructure has not yet been constructed, new development projects shall be required to implement temporary on-site retention facilities in conformance with City standards.

Northeast Industrial Specific Plan

The NEI Specific Plan includes the following goals, policies, and programs related to utilities and service systems.

Water Supply and Distribution

The distribution, location, and extent of the water improvements within the NEI Specific Plan area are subject to the NEI Phase I Finance and Implementation Plans, dated December 1999 (Resolution Numbers 99-462 and 99- 485), as amended or extended by subsequent resolutions dated April 1, 2003 (Resolution Number 2003-100), January 4, 2005 (Resolution Number 2005-023), February 21, 2006 (Resolution Number 2006-069), and April 15, 2008 (Resolution Number 2008-065). Improvements within the Specific Plan area are also subject the NEI Phase II Finance and Implementation Plans, dated January 2006 (Resolution Number 2006-038) and January 15, 2008 (Resolution Number 2008-010).

All future water and/or wastewater improvements will also be subject to any revisions or updates to the NEI Finance and Implementation Plans and subject to the applicable development impact fees as established in those plans.

Wastewater Collection and Disposal

The distribution, location, and extent of the wastewater conveyance treatment and discharge and any future improvements within the NEI Specific Plan area are subject to the same NEI Phase I Finance and Implementation Plans and resolutions identified above.

Storm Drainage

The distribution, location, and extent of the storm drainage improvements and any future improvements within the NEI Specific Plan area are subject to the same NEI Phase I Finance and Implementation Plans and resolutions identified above.

Hazardous Wastes and Water Pollutants

All new industries with the NEI Specific Plan area are required to obtain a Discharge Permit from the Director of Utilities prior to occupancy. The permit establishes the amount and quality of wastes allowed to be discharged into the City's sanitary sewer.

The quality of wastewater entering the City's sewage system from the proposed uses would be measured by the Biochemical Oxygen Demand and Total Suspended Solids levels referenced in the local Water Quality Control Board 208 Plan. Users that are not expected to comply with these standards will be required to provide on-site pretreatment facilities.

City of Tracy 2020 Urban Water Management Plan

The City prepared the 2020 UWMP to meet the requirements of the California Urban Water Management Planning Act. The 2020 UWMP evaluates sources of the water supply for the City's

projected population and future water demand until 2045, the planning horizon. The UWMPs are intended to help facilitate implementation of SB 610 and SB 221.

3.16.4 - Impacts and Mitigation Measures

Significance Criteria

The City has elected, in its discretion, to utilize the questions in the CEQA Guidelines Appendix G Environmental Checklist as thresholds of significance for this project. According to the CEQA Guidelines Appendix G Environmental Checklist, to determine whether impacts to utilities and service systems would have significant environmental effects, the following questions are analyzed and evaluated. Would the proposed project:

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

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

c) Result in a determination by the wastewater treatment provider, which serves or may serve the proposed project, that it has adequate capacity to serve the proposed project's projected demand in addition to the provider's existing commitments?

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

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

Approach to Analysis

For purposes of this analysis, the following thresholds are used to evaluate the significance of utilities and services systems impacts resulting from implementation of the proposed project.

- Create a need for relocated, new, or expanded water supply, wastewater treatment, stormwater drainage facilities, electric power, natural gas, or telecommunications facilities, the construction of which would result in significant construction-related traffic, air quality, GHG emissions, energy, or noise impacts. Determination of significance of construction-related air quality, GHG emissions, energy, noise, and transportation impacts associated with the development of the foregoing infrastructure is based on the respective specific thresholds of significance listed in Section 3.3, Air Quality; Section 3.6, Energy; Section 3.8, Greenhouse Gas Emissions; Section 3.12, Noise; and Section 3.14, Transportation, and are addressed in those sections.
- Result in insufficient water supply to serve the proposed project's potable water demand during normal, dry, and multiple dry years.
- Inadequate capacity at the WWTP to serve the proposed plan's wastewater generation.

- Insufficient daily capacity or permitted daily capacity at the Foothill Sanitary Landfill to serve the proposed project's waste generation.
- Unable to comply with AB 939 solid waste diversion goals.

Water

A WSA was completed for the proposed project by West Yost in December 2021[27] and is provided in Appendix K. The purpose of the WSA was to perform the evaluation required by California Water Code sections 10910 through 10915, as established by SB 610. The WSA evaluates the adequacy of the total project water supplies of the City (as the water purveyor to the proposed project), including existing water supplies and future planned water supplies, to meet the City's existing and projected future water demands, including those future water demands associated with the proposed project, under all hydrological conditions (Normal Years, Single Dry Years, and Multiple Dry Years).

Wastewater

Wastewater production was calculated and compared with the City's treatment capacity to determine whether wastewater treatment requirements would be exceeded. The City's wastewater discharge permitting requirements were also reviewed.

Stormwater

Stormwater production was calculated and compared with the City's stormwater facility treatment capacity to determine whether stormwater collection requirements would be exceeded.

Solid Waste

Solid waste production was calculated and compared with the applicable landfill capacity to determine whether landfill daily permitted capacity and total storage capacity would be exceeded. The City's and RecycleSmart's solid waste regulations and policies were also reviewed.

Electricity and Natural Gas

Electricity and natural gas usage were calculated and compared to existing capacity to determine whether existing sources would meet project demands. Section 3.6, Energy and Section 3.8, Greenhouse Gas Emissions, also address electricity and natural gas demands.

Telecommunications

The telecommunications providers in the City of Tracy were identified.

[27] West Yost. 2021. Tracy Alliance Project Water Supply Assessment (prepared for the City of Tracy). December.

Impact Analysis

Water, Wastewater, Stormwater, Electric Power, Natural Gas, and Telecommunications Facilities

Impact UTIL-1: **The proposed project could require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.**

Construction

Water

Water Supply

Construction of the proposed project would result in a relatively nominal amount of water use for dust control, mixing concrete, washing equipment and vehicles, and other activities, such as personal consumption. Because construction would require a minimal, limited quantity of water, it is reasonable to conclude that the City would have adequate water supply capacity to serve construction demands in addition to its other existing commitments, and new or expanded entitlements would not be necessary. Therefore, construction impacts related to need for new water supply infrastructure facilities because of water demand would be less than significant.

Infrastructure Construction, Expansion, or Relocation

The implementation of the proposed project would result in the construction of new water line connections from existing water lines within Paradise Road. Potential construction impacts related to expansion of existing water infrastructure are included in the construction analyses throughout this Draft EIR including in Section 3.3, Air Quality; Section 3.4, Biological Resources; Section 3.5, Cultural Resources; Section 3.6, Energy; Section 3.8, Greenhouse Gas Emissions; Section 3.12, Noise; Section 3.14, Transportation; and Section 3.15, Tribal Cultural Resources. Beyond the foregoing, there are no additional impacts associated with the construction or expansion of water infrastructure that would result in potentially significant impacts, and no additional mitigation would be required to address potential impacts related to construction or expansion of water supply infrastructure facilities. Therefore, construction impacts related to planned construction, expansion, and relocation of water infrastructure facilities would be less than significant.

Wastewater

Generation

Construction of the proposed project would result in the generation of wastewater associated with water used for dust control, mixing concrete, washing equipment and vehicles, and other activities as well as wastewater generated from construction workers. The WWTP would treat wastewater generated by construction of the proposed project consistent with applicable standards established by the Central Valley RWQCB. As discussed under Impact UTIL-3, the WWTP would have sufficient capacity to serve the proposed project (both construction and operation) and a new or expanded wastewater treatment facility would not be required. Therefore, construction impacts related to need for new wastewater infrastructure facilities as a result of wastewater generation would be less than significant.

Infrastructure Construction, Expansion, or Relocation

No new or expanded wastewater treatment facilities would be required as a result of construction of the proposed project.

The proposed project is anticipated to include connections to the existing City sanitary sewer system operated by the Public Works Department via the existing 15-inch wastewater line beneath Paradise Road and the existing 10-inch sanitary sewer line beneath Grant Line Road. Based on the individual development application submitted in connection therewith, the development of the Tracy Alliance parcels would be served as follows:

- **Building A:** would be served via two proposed 8-inch sanitary sewer lines that would each connect to the existing 15-inch sanitary sewer line in Paradise Road.
- **Building B:** would be served by a proposed 6-inch sanitary sewer line that would traverse the northern side of Building A, connecting to the existing 15-inch sanitary sewer line in Paradise Road.
- **Building C:** would be served by two sanitary sewer lines: (1) a proposed 6-inch sanitary sewer line that would connect to an existing 10-inch sanitary sewer line in Grant Line Road, and (2) a proposed 8-inch sanitary sewer line that would connect to the existing 15-inch sanitary sewer line in Paradise Road.

With respect to the remainder of the project site, since no individual development proposals have been submitted to the City for either the Suvik Farms or Zuriakat parcels at this time, the exact location and sizing of an on-site sanitary sewer system is not currently known. Rather, this information would be identified and reviewed by the City as part of subsequent engineering and related plans when individual development applications are submitted for these parcels; all proposed infrastructure in connection with these applications would be required to meet all applicable standards and requirements. Though the exact overall capacity of the wastewater output for the Suvik Farms and Zuriakat parcels are not known at this time, both the Suvik Farms and Zuriakat parcels are within the City's SOI and were planned for as industrial sites by the City as analyzed within the Tracy's Municipal Services Review,[28] and therefore wastewater services would be available to serve the properties.

Potential construction impacts related to construction or expansion of wastewater infrastructure are included in the construction analyses throughout this Draft EIR including in Section 3.3, Air Quality; Section 3.4, Biological Resources; Section 3.5, Cultural Resources; Section 3.6, Energy; Section 3.8, Greenhouse Gas Emissions; Section 3.12, Noise; Section 3.14, Transportation; and Section 3.15, Tribal Cultural Resources. Beyond the foregoing, there are no additional impacts associated with the construction or expansion of wastewater infrastructure that would result in potentially significant impacts, and no additional mitigation would be required to address potential construction impacts related to the need for expansion of wastewater infrastructure. Therefore, impacts related to the

[28] De Novo Planning Group. 2019. Tracy Municipal Services Review. July.

planned construction, expansion, and relocation of wastewater infrastructure facilities would be less than significant.

Stormwater

The construction of the proposed project itself would not result in the need for increased stormwater infrastructure improvements beyond those proposed on-site to serve the proposed project. Specifically, the proposed project is anticipated to construct various storm drainage improvements including the proposed project's on-site stormwater detention basin, bioretention basins and a 12-inch forced main storm drain line along Paradise Road. Potential construction impacts related to construction of the foregoing improvements are included in the construction analysis throughout this Draft EIR including in Section 3.3, Air Quality; Section 3.4, Biological Resources; Section 3.5, Cultural Resources; Section 3.6, Energy; Section 3.8, Greenhouse Gas Emissions; Section 3.12, Noise; Section 3.14, Transportation; and Section 3.15, Tribal Cultural Resources. There are no additional impacts associated with the construction of new or expanded stormwater facilities that would result in potentially significant impacts, and no additional mitigation would be required to address potential impacts related to construction or expansion of these facilities. Therefore, construction impacts related to planned construction, expansion, and relocation of stormwater facilities would be less than significant.

Electric Power

Demand and Consumption

Construction of the proposed project would consume electricity for construction work areas, field services (office trailers), and electric-driven equipment such as pumps and other tools. As on-site construction activities would be restricted between permitted construction hours (7:00 a.m. and 10:00 p.m. on weekdays or between the hours of 7:00 a.m. and 10:00 p.m. on weekends and federal holidays),[29] it is anticipated that the use of construction lighting would be relatively limited. As discussed more fully in Section 3.6, Energy, due to the temporary nature of construction and the financial incentives for developers and contractors to use energy-consuming resources in an efficient manner, construction demand and consumption of electricity would not be significant. Therefore, construction impacts related to need for new electrical supply infrastructure facilities because of electricity demand would be less than significant.

Infrastructure Construction, Expansion, or Relocation

Construction of the proposed project would include new connections from existing electrical lines along Grant Line Road to the proposed project. In addition, the existing overhead electrical linealong the eastern side of Paradise Road would be removed and placed underground during construction. Potential construction impacts related to expansion of existing electrical infrastructure are included in the construction analysis throughout this Draft EIR including in Section 3.3, Air Quality; Section 3.4, Biological Resources; Section 3.5, Cultural Resources; Section 3.6, Energy; Section 3.8, Greenhouse Gas Emissions; Section 3.12, Noise; Section 3.14, Transportation; and Section 3.15, Tribal Cultural Resources. Beyond the foregoing, there are no additional impacts associated with the

[29] City of Tracy Municipal Code. No date. Title 4, Chapter 12, Article 9. Website: https://library.municode.com/ca/tracy/codes/code_of_ordinances?nodeId=TIT4PUWEMOCO_CH4.12MIRE_ART9NOCO_4.12.720DEPO. Accessed: December 18, 2020.

construction or expansion of electrical facilities that would result in potentially significant impacts, and no additional mitigation would be required to address potential impacts related to the need for relocation or construction of expanded electrical facilities. Therefore, construction impacts related to planned construction, expansion, and relocation of electrical infrastructure facilities would be less than significant.

Natural Gas

Demand and Consumption

Implementation of the proposed project would not consume natural gas for construction purposes. Therefore, there would be no construction impact related to need for new or expanded natural gas supply infrastructure facilities as a result of natural gas demand.

Infrastructure Construction, Expansion, or Relocation

Implementation of the proposed project would include new connections from existing natural gas lines along Grant Line Road to the project site. Potential construction impacts associated with the expansion of existing natural gas infrastructure are included in the construction analysis throughout this Draft EIR including in Section 3.3, Air Quality; Section 3.4, Biological Resources; Section 3.5, Cultural Resources; Section 3.6, Energy; Section 3.8, Greenhouse Gas Emissions; Section 3.12, Noise; Section 3.14, Transportation; and Section 3.15, Tribal Cultural Resources. Beyond the foregoing, there are no additional impacts associated with the expansion of existing natural gas infrastructure, and no additional mitigation would be required to address potential impacts related to the need for construction of expanded natural gas facilities. Therefore, construction impacts related to planned construction, expansion, and relocation of electrical infrastructure facilities would be less than significant.

Telecommunications

Demand

Implementation of the proposed project would use telecommunications (phone and internet) for construction field services (office trailers). Implementation of the proposed project would not result in a substantial demand for service. Therefore, construction impacts related to need for new telecommunications infrastructure facilities as a result of telecommunications demand would be less than significant.

Infrastructure Construction, Expansion, or Relocation

Implementation of the proposed project would include new connections from existing telecommunications lines to the proposed project site. Potential construction impacts related to expansion of existing telecommunications infrastructure are included in the construction analysis throughout this Draft EIR including in Section 3.3, Air Quality; Section 3.4, Biological Resources; Section 3.5, Cultural Resources; Section 3.6, Energy; Section 3.8, Greenhouse Gas Emissions; Section 3.12, Noise; Section 3.14, Transportation; and Section 3.15, Tribal Cultural Resources. Beyond the foregoing, there are no additional impacts associated with extension and expansion of existing telecommunications infrastructure, and no additional mitigation measures would be required to address potential impacts related to construction of these facilities. Therefore, construction impacts related to planned construction, expansion, and relocation of telecommunications infrastructure facilities would be less than significant.

Operation

Water

For the purposes of this analysis, buildout is assumed to be 2045, but would occur beyond that planning horizon.

Water Supply Availability and Reliability

As discussed herein and detailed in the attached WSA, sufficient water supplies are available to serve the proposed project during normal, dry, and multiple dry year scenarios with reliance on existing and additional supplies from future planned projects, including ASR Program Expansion, Recycled Water Distribution Network and Exchange Program for additional CVP water supplies, and recycled water distribution for non-potable use.

Water Code Section 10910 (c)(4) requires that a WSA include a discussion with regard to "whether total projected water supplies, determined to be available by the city or county for the proposed project during normal, single dry, and multiple dry water years during a 20-year projection, will meet the projected water demand associated with the proposed project, in addition to existing and planned future uses, including agricultural and manufacturing uses." Accordingly, the WSA addresses these three hydrologic conditions through the year 2045.

Also, in response to drought conditions and the State of Emergency proclaimed by Governor Brown, first in January 2014 and again in April 2015, the WSA provides a discussion of the availability and reliability of the City's available water supplies to meet the City's water demands if the City's surface water supplies are limited under emergency water supply conditions.

The reliability of each of the City's existing and additional planned water supplies and their projected availability during normal, single dry, and multiple dry years is described below and summarized in Table 3.16-7.

Table 3.16-7: Water Supply Reliability in Normal, Single Dry, and Multiple Dry Years

Supply Source	Anticipated Reliability (% of Entitlement)		
	Normal Years	Single Dry Years	Multiple Dry Years
Current Water Supplies			
USBR CVP			
M&I Reliability Water (Tracy Contract)[a]	75	25	40
Ag Reliability Water (BCID and WSID Contract)	50	0	0
BBID for Tracy Hills Demand	100	100	100
South County Water Supply Project (SSJID)	100	56-76[b]	56-100[b]
Groundwater[c]	100	100	100

Supply Source	Anticipated Reliability (% of Entitlement)		
	Normal Years	Single Dry Years	Multiple Dry Years
Current Dry Year Supplies			
Semitropic Water Storage Bank[(d)]	—	0	67
Aquifer Storage and Recovery	—	100	100
Additional Planned Future Water Supplies			
USBR CVP (BBID contract) (Ag Reliability Water)	0	0	0
Recycled Water Exchange (Potable)	100	100	100
Recycled Water (for non-potable uses)[(e)]	100	100	100

Notes:
AFY = acre-feet per year
BBID = Byron-Bethany Irrigation District
BCID = Banta-Carbona Irrigation District
CVP = Central Valley Project
SSJID = South County Water Supply Project
USBR = United States Bureau of Reclamation
WSID = West Side Irrigation District
(a) Anticipated reliability percentage is based on historical use in accordance with 2017 USBR CVP Municipal and Industrial Water Shortage Policy Update.
(b) Based on information from SSJID.
(c) Although the City can sustainably extract up to 9,000 AFY of groundwater on a continuous basis, the City is planning to scale back its groundwater extraction in normal years to increase the overall quality of its water supply. With these reduced supply volumes, the groundwater resource is considered 100 percent reliable.
(d) Because of the difficulties experienced by the City in accessing stored water via the DMC, the City has conservatively assumed that 0 percent of the City's Semitropic water supply will be available in the first year of a multiple dry year period and 100 percent will be available in the second and third year. The 67 percent presented in this table for multiple dry years is the average value for a 3-year period.
(e) Although recycled water supplies are currently available from the City's WWTP, required recycled water pipelines and pump stations to convey and deliver the recycled water to the recycled water use areas have not yet been constructed. See Section 6.3.1 of this WSA for additional information regarding the City's plan for implementation of its recycled water system.
Source: West Yost. 2021. Tracy Alliance Project Water Supply Assessment (prepared for the City of Tracy). December.
EKI Environmental and Water. 2021. 2020 Urban Water Management Plan (prepared for the City of Tracy), Tables 7-2 and 7-3 and Section 7.1.2.3. June.

Normal Years

Normal or wet water years are those water years that match or exceed median rainfall and runoff levels. The following describes the availability and reliability of the City's existing and future water supplies and their projected availability under normal year conditions:

- The City's contract with the USBR for 10,000 AFY of CVP water is subject to M&I reliability. Based on the historical record, the City's long-term average allocation of DMC/CVP water pursuant to this contract is anticipated to be at least 85 percent of the total entitlement. However, due to recent environmental concerns in the Delta and potential future impacts due to climate change, the normal year reliability of CVP M&I water is conservatively assumed to be 75 percent of the City's historical use. Based on a historical use of 5,930 AFY (i.e., the

average quantity of CVP water put to beneficial use by the City during the last 3 years of water deliveries that were unconstrained by the availability of CVP water), the projected normal year supply is 4,448 AFY.

- The City has received acquired assignments from BCID (5,000 AFY) and WSID (5,000 AFY) for a total entitlement of 10,000 AFY of DMC/CVP water. These supplies are subject to Ag-reliability. The City is conservatively estimating that it will receive 50 percent of its Ag-reliability contractual entitlement (5,000 AFY) in normal years.
- The City has acquired up to 4,500 AFY of pre-1914 appropriative water rights water from BBID. These supplies are restricted in their place of use, and therefore the supply is anticipated to be equal to the projected demand within that place of use (i.e., the Tracy Hills area) ranging from 800 AFY in 2025 to 3,300 AFY in 2045. The City anticipates being able to receive 100 percent of this supply in normal years.
- The City has a total contractual entitlement of 13,135 AFY of Stanislaus River water provided through the SCWSP, including 10,000 AFY from its original contract with SSJID and 1,120 AFY purchased from the City of Lathrop's supply entitlement, and 2,015 AFY purchased on an interim basis from Escalon. The agreement between Tracy and Escalon is assumed to terminate after 2025. Based on information provided by SSJID, the City expects to receive 100 percent of its SCWSP water supply allocation during a normal water year. As such, the City anticipates being able to receive 13,135 AFY of SCWSP supply in 2025 and 11,120 AFY afterward, assuming normal year conditions.
- The City is able to withdraw up to 9,000 AFY of groundwater from the Tracy Subbasin. However, because of the aging infrastructure and water quality issues in the City's groundwater supplies, the City is projecting to withdraw only up to 2,500 AFY in normal years. This groundwater supply is considered to be 100 percent reliable.
- The City does not anticipate using its dry year supplies of Semitropic water in normal years.

  The City anticipates that a Recycled Water Distribution Network and Exchange agreement will be executed with the USBR by 2030 to provide additional CVP supplies to the City in exchange for the City discharging a like amount of tertiary-treated recycled water to the DMC. The City assumes that the Recycled Water Distribution Network and Exchange will be implemented as needed to meet future demand conditions and is currently projected to supply an amount ranging from 1,925 AFY in 2030 to 7,500 AFY in 2045. This water supply is considered to be 100 percent reliable.
- The City's recycled water supply is expected to be 100 percent reliable. Based on the projected non-potable demands and assuming that the City makes investments in infrastructure and permitting, the City estimates that they will have access to 1,000 AFY of recycled water supply in 2025, increasing to 6,300 AFY in 2045.

The reliability of each of the City's existing and additional planned future water supplies and their projected availability during normal years is shown in Table 3.16-8.

Table 3.16-8: Projected Existing and Additional Planned Future Water Supplies Available in Normal Years at Buildout

Supply	Percent of Entitlement	Projected Available Supplies (AFY)
Existing Water Supplies		
USBR CVP–Tracy Contract[a]	75	4,448
USBR CVP–BCID Contract	50	2,500
USBR CVP–WSID Contract	50	2,500
Total Existing CVP Supplies		**9,448**
BBID (pre-1914 to meet Tracy Hills demand)	100	3,330
SCWSP (SSJID) (pre-1914)	100	11,120
Groundwater	100	2,500
Semitropic Water Storage Bank[b]	0	0
	Total	**16,950**
Total Existing Potable Supplies		**26,368**
Additional Planned Future Water Supplies[a]		
Additional USBR CVP (BBID contract)	0	0
Aquifer Storage and Recovery[b]	0	0
Recycled Water Exchange	100	7,500
Recycled Water (non-potable)	100	6,300
Total Additional Planned Future Potable Supplies		**7,500**
Total Potable Supplies		**33,868**
Total Additional Planned Future Non-Potable Supplies		**6,300**
	Total Water Supply	**40,168**

Notes:
AFY = acre-feet per year
BBID = Byron-Bethany Irrigation District
BCID = Banta-Carbona Irrigation District
CVP = Central Valley Project
USBR = United States Bureau of Reclamation
WSID = West Side Irrigation District
(a) Percent of historical use
(b) Not used in normal years
Source: West Yost. 2021. Tracy Alliance Project Water Supply Assessment (prepared for the City of Tracy). December.

Single Dry Year

During a single dry year, all the City's existing surface water allotments are subject to some level of reduction. Assumed reductions are based on actual reductions in CVP deliveries experienced in the recent drought and the new USBR M&I Reliability Policy adopted in 2017. The actual reductions will vary with the severity of the regional water supply shortage and climatic conditions and the

consideration of contract agreements. The following describes the availability and reliability of the City's existing and future water supplies and their projected variability under single dry year conditions:

- The City's contract with the USBR for 10,000 AFY of DMC/CVP water is subject to M&I reliability. During a single dry year, the City estimates to receive 25 percent of the City's historical use. Based on the historical use of 5,930 AFY, the projected supply is 1,483 AFY.
- The City has a total entitlement of 10,000 AFY of DMC/CVP Ag-reliability water. The City anticipates receiving 0 percent of its DMC/CVP Ag-reliability water in a single dry year.
- The City has acquired up to 4,500 AFY of pre-1914 appropriative water rights water from BBID. This supply is restricted with regard to the place of use (Tracy Hills), and therefore the total maximum use is limited to 3,330 AFY (the projected water demand for Tracy Hills). Because the City anticipates being able to receive 85 percent of its contractual entitlement in a single dry year (3,825 AFY), the reduction in reliability does not result in a reduction to actual amount of water used. Therefore, the supply in a single dry year is anticipated to be equal to the projected demand within the Tracy Hills area, ranging from 800 AFY in 2025 to 3,300 AFY in 2045.
- The City has a total contractual entitlement of 13,135 AFY of Stanislaus River water provided through the SCWSP. Based on information provided by SSJID, the City expects to receive 76 percent of its SCWSP water supply allocation during 2025, 2030, and 2035 and 56 percent during 2040 and 2045. In addition, the SCWSP water transferred from Escalon is assumed to be unavailable after 2025. As such, the City estimates 9,974 AFY of SCWSP supply in 2025, 8,444 AFY in 2030 and 2035, and 6,177 AFY in 2040 and 2045.
- During a single dry year, the City anticipates increasing its groundwater production on a short-term basis from the normal year production of 2,500 AFY to 4,500 AFY. The groundwater supply is considered to be 100 percent reliable.
- The City anticipates that 700 AFY of water will be available for use in a single dry year through operation of its ASR well. An additional 300 AFY is estimated to be available by 2040 (and would also be available in 2045) for a total of 1,000 AFY. This water supply is considered to be 100 percent reliable assuming that the City is consistently able to refill the ASR storage during non-drought years to maintain at least 1,000 acre-feet in storage at the beginning of a single dry year.
- The City has acquired 10,500 AFY of storage in Semitropic, which allows the City to withdraw up to 3,500 AFY for 3 consecutive years. Because of the difficulties experienced by the City in accessing stored water via the DMC on a short timeframe, the City has conservatively assumed that 0 percent of Semitropic water will be available in a single dry year.

- The City anticipates that a Recycled Water Distribution Network and Exchange agreement will be executed with the USBR by 2030 to provide additional CVP supplies to the City in exchange for the City discharging a like amount of tertiary-treated recycled water to the DMC. The City assumes that the Recycled Water Distribution Network and Exchange will be implemented as needed to meet future demand conditions and is currently projected to supply an amount ranging from 1,925 AFY in 2030 to 7,500 AFY in 2045. This water supply is considered to be 100 percent reliable.
- The City's recycled water supply is expected to be 100 percent reliable. Based on the projected non-potable demands and assuming that the City makes investments in infrastructure and permitting, the City estimates that they will have access to 1,000 AFY of recycled water supply in 2025, increasing to 6,300 AFY in 2045.

The reliability of each of the City's existing and additional planned future water supplies and their projected availability during a single dry year is shown in Table 3.16-9.

Table 3.16-9: Projected Existing and Additional Planned Future Water Supplies Available in a Single Dry Year at Buildout (2045)

Supply	Percent of Entitlement	Projected Available Supplies, AFY
Current Water Supplies		
USBR CVP–Tracy Contract[a]	25	1,483
USBR CVP–BCID Contract	0	0
USBR CVP–WSID Contract	0	0
Total Existing CVP Supplies		**1,483**
BBID (pre-1914 to meet Tracy Hills demand)	100	3,300
SCWSP (SSJID) (pre-1914)[b]	56	6,177
Groundwater[c]	100	4,500
Semitropic Water Storage Bank	0	0
Total Existing Potable Supplies		**15,460**
Additional Planned Future Water Supplies		
Additional USBR CVP (BBID contract)	0	0
Aquifer Storage and Recovery[c][d]	100	1,000
Recycled Water Exchange[c]	100	7,500
Recycled Water (non-potable)[c]	100	6,300
Total Additional Planned Future Potable Supplies		**8,500**
Total Potable Supplies[c]		**23,959**
Total Additional Planned Future Non-Potable Supplies		**6,300**
	Total Water Supply	**30,259**

Supply	Percent of Entitlement	Projected Available Supplies, AFY

Notes:
AFY = acre-feet per year
BBID = Byron-Bethany Irrigation District
BCID = Banta-Carbona Irrigation District
CVP = Central Valley Project
USBR = United States Bureau of Reclamation
WSID = West Side Irrigation District
(a) Percent of historical use
(b) Percentage of contract entitlement is based on information from SSJID for 2040 and later
(c) Groundwater and recycled water volumes assume the City invests in infrastructure and/or permitting
(d) ASR volumes assume surplus supplies are available in wet years to inject and store and additional investment in ASR construction and operation.
Source: West Yost. 2021. Tracy Alliance Project Water Supply Assessment (prepared for the City of Tracy). December.

Multiple Dry Years

If there are multiple dry years, the City's surface water supplies (from both the CVP and SCWSP) may be significantly reduced. Thus, in the event of drought, the City will have to depend more heavily on conservation efforts, groundwater, and the proposed future supply projects.

The following describes the availability and reliability of the City's existing and future water supplies and their projected availability during a 5 consecutive year drought:

- The City's contract with the USBR for 10,000 AFY of DMC/CVP water is subject to M&I reliability. During multiple dry years, the City estimates receiving 40 percent of the City's historical use. Based on the historical use of 5,930 AFY, the projected supply is 2,372 AFY.
- The City has a total entitlement of 10,000 AFY of DMC/CVP Ag-reliability water. The City anticipates receiving 0 percent of its DMC/CVP Ag-reliability water in multiple dry years.
- The City has acquired up to 4,500 AFY of pre-1914 appropriative water rights water from BBID. This supply is restricted with regard to the place of use (Tracy Hills). The City anticipates being able to receive 85 percent of its contractual entitlement in multiple dry years (3,825 AFY). As the projected demand is 3,300 AFY in 2045 and is lower than the 3,825 AFY of available supply, the reduction in reliability does not result in a reduction to actual amount of water used. Therefore, the supply in multiple dry years is anticipated to be equal to the projected demand within the Tracy Hills area, ranging from 800 AFY in 2025 to 3,300 AFY in 2045.
- The City has a total contractual entitlement of 13,135 AFY of Stanislaus River water provided through the SCWSP. Based on information provided by SSJID, the City's SCWSP water supply reliability during multiple dry years range from 56 to 100 percent. In addition, the SCWSP water transferred from Escalon is assumed to be unavailable after 2025. The City's projected SCWSP supply is presented in Table 3.16-10.
- During multiple dry years, the City anticipates increasing its groundwater production on a short-term basis from the normal year production of 2,500 AFY to 4,500 AFY. The groundwater supply is considered to be 100 percent reliable.

- The City anticipates that 700 acre-feet of water will be available for use in multiple dry years through operation of its ASR well. An additional 300 AF is estimated to be available by 2040 for a total of 1,000 acre-feet. The City is assumed to be unable to refill the ASR storage during multiple dry years. Therefore, the annual ASR supply available is assumed to equal one fifth of the total stored volume (i.e., 140 AFY between 2025 and 2035 and 200 AFY between 2040 and 2045). This water supply is considered to be 100 percent reliable assuming that the City is consistently able to refill the ASR storage in non-drought years to maintain at least 1,000 acre-feet in storage at the beginning of a multiple dry year sequence.
- The City has acquired 10,500 AFY of storage in Semitropic, which allows the City to withdraw up to 3,500 AFY for 3 consecutive years. Because of the difficulties experienced by the City in accessing stored water via the DMC on a short timeframe, the City has conservatively estimated that 0 percent of the City's storage will be available in the first year of a 5 consecutive year drought and 100 percent will be available over the following 4 years. Based on the City's current storage at Semitropic of 6,887 acre-feet, the amount available in the second to fifth year of a 5 consecutive year drought is assumed to be 1,722 AFY (6,887 acre-feet divided by four). A similar reliability estimate is provided for all dry year sequences under the assumption that the City is consistently able to refill the water bank in non-drought years to maintain at least 7,000 AFY in storage at the beginning of a multiple dry year sequence.
- The City anticipates that a Recycled Water Distribution Network and Exchange agreement will be executed with the USBR by 2030 to provide additional CVP supplies to the City in exchange for the City discharging a like amount of tertiary-treated recycled water to the DMC. The City assumes that the Recycled Water Distribution Network and Exchange will be implemented as needed to meet future demand conditions and is currently projected to supply an amount ranging from 1,925 AFY in 2030 to 7,500 AFY in 2045. This water supply is considered to be 100 percent reliable.
- The City's recycled water supply is expected to be 100 percent reliable. Based on the projected non-potable demands and assuming that the City makes investments in infrastructure and permitting, the City estimates that they will have access to 1,000 AFY of recycled water supply in 2025, increasing to 6,300 AFY in 2045.

The reliability of each of the City's existing and additional planned future water supplies and their projected availability during a five-conservative dry year (multiple dry year) period at buildout (2045) is shown in Table 3.16-10.

Table 3.16-10: Projected Existing and Additional Planned Future Water Supplies Available in Multiple Dry Years at Buildout (2045)

Supply	Percent of Entitlement	Projected Available Supplies Year 1 (AFY)	Projected Available Supplies Year 2 (AFY)	Projected Available Supplies Year 3 (AFY)	Projected Available Supplies Year 4 (AFY)	Projected Available Supplies Year 5 (AFY)
Existing Water Supplies						
USBR CVP–Tracy[(a)] Contract	40	2,372	2,372	2,372	2,372	2,372
USBR CVP–BCID Contract	0	0	0	0	0	0
USBR CVP–WSID Contract	0	0	0	0	0	0
Total CVP Supplies		**2,372**	**2,372**	**2,372**	**2,372**	**2,372**
BBID (pre-1914 to meet Tracy Hills demand)	100	3,300	3,300	3,300	3,300	3,300
South County Water Supply Project (SSJID) (pre-1914)	See note (b)	11,120	11,120	6,177	6,177	11,120
Groundwater[(c)]	100	4,500	4,500	4,500	4,500	4,500
Semitropic Water Storage Bank	100	0	1,722	1,722	1,722	1,722
Total Existing Potable Supplies		**21,292**	**23,014**	**18,071**	**18,071**	**23,014**
Additional Planned Future Water Supplies						
Additional USBR CVP (BBID contract)	0	0	0	0	0	0
Aquifer Storage and Recovery[(c)(d)]	100	200	200	200	200	200
Recycled Water Exchange[(c)]	100	7,500	7,500	7,500	7,500	7,500
Recycled Water (non-potable)[(c)]	100	6,300	6,300	6,300	6,300	6,300
Total Additional Planned Future Potable Supplies		**7,700**	**7,700**	**7,700**	**7,700**	**7,700**
Total Potable Supplies		**28,992**	**30,714**	**25,771**	**25,771**	**30,714**
Total Additional Planned Future Non-Potable Supplies		**6,300**	**6,300**	**6.300**	**6,300**	**6,300**
Total Water Supply		**35,292**	**37,014**	**32,071**	**32,071**	**37,014**

Supply	Percent of Entitlement	Projected Available Supplies Year 1 (AFY)	Projected Available Supplies Year 2 (AFY)	Projected Available Supplies Year 3 (AFY)	Projected Available Supplies Year 4 (AFY)	Projected Available Supplies Year 5 (AFY)

Notes:
AFY = acre-feet per year
BBID = Byron-Bethany Irrigation District
BCID = Banta-Carbona Irrigation District
CVP = Central Valley Project
USBR = United States Bureau of Reclamation
WSID = West Side Irrigation District
(a) Percent of historical use
(b) Information provided by SSJID. SSJID's reliability estimates for a 5 consecutive year drought were based on the historical supplies available during the 2012 to 2016 drought period. During 2012, 2013, and 2016 (the first, second, and fifth years), SSJID was able to provide the full allocation, whereas during 2014 and 2015 (the third and fourth years), SSJID was only able to provide 75 percent of the full allocation.
(c) Groundwater and recycled water volumes assume the City invests in infrastructure and/or permitting.
(d) ASR volumes assume surplus supplies are available in wet years to inject and store and additional investment in ASR construction and operation.
Source: West Yost. 2021. Tracy Alliance Project Water Supply Assessment (prepared for the City of Tracy). December.

Emergency Water Supply Conditions

During the recent drought conditions in California, water supply deliveries from the SWP and CVP (and other surface water supply sources throughout California) were severely reduced and even the availability of pre-1914 water rights was challenged. Many water supply agencies, including the City, implemented their Water Shortage Contingency Plans, including mandatory water conservation measures, to reduce water use. Even with 0 percent deliveries from the City's USBR CVP agricultural supplies in 2014, the diversity of the City's water supply portfolio, together with water conservation efforts by the City's customers, allowed the City to meet all water demands. If the recent drought were to re-occur and deliveries of surface water supplies are reduced further, the City's Water Shortage Contingency Plan would be enacted as needed.

The City's Water Shortage Contingency Plan includes shortage response actions for six water shortage levels up to greater than 50 percent shortage due to foreseeable or unforeseeable events. The City's Water Shortage Contingency Plan is included in Appendix H of the 2020 UWMP. The City may implement demand reduction actions, supply augmentation, mandatory restrictions, and other actions as appropriate for the shortage level to reduce the gap between supply and demand.

Further, the City has prepared a Water System Emergency Response Plan which provides a framework for emergency response by the City's Utilities Department by describing the department's emergency management organization, roles, and responsibilities and emergency policies and procedures. The Water System Emergency Response Plan provides action plans to be implemented to address the emergency.

Water Supply Sufficiency

Pursuant to Water Code Section 10910(c)(4), analyses were conducted to assess the sufficiency of total projected water supply for existing and planned future demands, including the demands of the proposed project, during normal, single dry, and multiple dry water years over a 20 year projection.

Table 3.16-11 summarizes the projected availability of the City's existing and planned future potable water supplies compared with projected water demands in normal, single dry, and multiple dry years at buildout (2045). Exhibit 3.16-2 shows the City's existing and planned future potable water supplies and the City's projected water demands in normal, single dry, and multiple dry years at buildout.

To be conservative, water demands were assumed to be at normal levels without any conservation measures in place. With future planned projects implemented, the results of the assessment show that water supply is sufficient during normal years. However, during a single dry year or a multiple dry year period, the City must depend more heavily on conservation efforts, groundwater, and the proposed future supply projects, described in more detail below, to overcome the gap between supply and demand. As described in the WSA and the 2020 UWMP, these findings are primarily due to projected reduced reliability of the City's CVP supplies and SSJID supplies in dry years.

Table 3.16-11: Summary of Buildout Total Water Demand Versus Supply During Hydrologic Normal, Single Dry, and Multiple Dry Years

Hydrologic Condition		Supply and Demand Comparison, AFY[a]
Normal Year[b]		
Available Total Water Supply		40,168
Total Water Demand (with Proposed Project)		39,379
	Potential Surplus (Deficit)	789
	Percent Shortfall of Demand	—
Single Dry Year[c]		
Available Potable Water Supply		30,259
Total Water Demand (with Proposed Project)		39,379
	Potential Surplus (Deficit)	(9,120)*
	Percent Shortfall of Demand	(23 percent) *
Multiple Dry Years[d]		
Multiple-Dry Year 1	Available Total Water Supply[e]	35,292
	Total Water Demand (with Proposed Project)	39,379
	Potential Surplus (Deficit)	(4,087) *
	Percent Shortfall of Demand	(10.4 percent) *

Hydrologic Condition		Supply and Demand Comparison, AFY[(a)]
Multiple-Dry Year 2	Available Total Water Supply	37,014
	Total Water Demand (with Proposed Project)	39,379
	Potential Surplus (Deficit)	(2,365) *
	Percent Shortfall of Demand	(6.0 percent) *
Multiple-Dry Year 3	Available Total Water Supply	32,071
	Total Water Demand (with Proposed Project)	39,379
	Potential Surplus (Deficit)	(7,308) *
	Percent Shortfall of Demand	(18.6 percent) *
Multiple-Dry Year 4	Available Total Water Supply	32,071
	Total Water Demand (with Proposed Project)	39,379
	Potential Surplus (Deficit)	(7,308) *
	Percent Shortfall of Demand	(18.6 percent) *
Multiple-Dry Year 5	Available Total Water Supply	37,014
	Total Water Demand (with Proposed Project)	39,379
	Potential Surplus (Deficit)	(2,365) *
	Percent Shortfall of Demand	(6.0 percent) *

Notes:
AFY = acre-feet per year
WSA = Water Supply Assessment
(a) Water demands are from Table 5-2 of the WSA.
(b) Normal Year supplies are from Table 6-6 of the WSA.
(c) Single Dry Year supplies are from Table 6-7 of the WSA.
(d) Multiple Dry Year supplies are from Table 6-8 of the WSA.
(e) Assumes 0 percent of the City's storage in Semitropic is available for the first year.
* (X) denotes there is a potential deficit
Source: West Yost. 2021. Tracy Alliance Project Water Supply Assessment (prepared for the City of Tracy). December.

To close any gap between supply and demand during dry years, the City would need to implement its Water Shortage Contingency Plan to reduce water demands. As discussed in Section 5.3 in the WSA, the City has shown that it can achieve its water conservation goals. During the 2012-2016 Statewide drought, the City exceeded its water conservation goal of 25 percent. Further, the City must fully implement its proposed future water supply projects, including the Recycled Water Distribution Network and Exchange Program and expansion of the ASR Program. Investments in wet year water supplies will also be needed to refill storage in Semitropic and expand the City's ASR Program. Delays in implementing the proposed future water supply projects could result in greater water supply shortages and the need for additional water conservation to meet demands.

The dry year shortfalls presented in Table 3.16-11 are based on water supply and demand projections with numerous uncertainties. The City continues to work on strategies and actions to

address the projected water supply shortfall. Uncertainties are itemized below, along with the City's water management strategies and options.

Uncertainties in Dry Year Water Supply Projections

Significant water supply shortfalls are currently projected in future single and multiple dry years. These projections include numerous sources of uncertainty as summarized below:

- The Bay-Delta Plan Amendment implementation is under negotiation. The SSJID and others are continuing negotiations with the State Water Board on implementation of the Bay-Delta Plan Amendment for water supply cutbacks, particularly during droughts. This is a dynamic situation and the projected drought cutback allocations may need to be revised before the next (i.e., 2025) UWMP depending on the outcome of ongoing negotiations. The City has considered a conservative estimate of the potential impacts of the Bay-Delta Plan Amendment on the SCWSP (and therefore the City), which is provided in Appendix G of its 2020 UWMP.
- The supply yield of the City's development of additional ASR and recycled water supplies are accounted for in current supply projections. However, implementation of these projects will require significant investment by the City. Similarly, investments in wet years supplies will be needed to refill storage in Semitropic and expand the City's ASR Program.
- The City continues to work closely with the USBR and SSJID on their rationing policies to ensure that M&I needs can be met. Rationing policies may potentially be revised.
- The City's projected water demands are subject to change in the future based on water conservation policies and regulations for current and future development, and the pace and extent of development.
- Frequency and duration of cutbacks and, therefore, the shortfalls are also uncertain. In addition to the supply volumes, the above listed uncertainties would also impact the projected frequency and duration of shortfalls.

Water Management Strategies and Options

The City has developed strategies and actions to address the projected supply shortfalls discussed in the 2020 UWMP which are provided below.

- **Recycled Water for Non-Potable Use:** The City continues to develop recycled water supplies as discussed in Section 6.2 of the WSA. Recycled water is planned to augment non-potable demands that would otherwise be supplied with potable water.
- **Future Water Supply Projects:** The City continues to evaluate the expansion of its existing supply and to obtain new supply sources, including the ASR Program and Recycled Water Distribution Network and Exchange Program. Other potential supply options, such as direct potable reuse of recycled water, are also being considered.
- **Implementation of Demand Management Measures:** The City has an active water conservation program and continues to implement the demand management measures described in Section 9 of the 2020 UWMP. Further, in response to the anticipated future shortfalls, the City has developed a robust Water Shortage Contingency Plan (WSCP) that

systematically identifies ways in which the City can reduce water demands. The WSCP is included in Section 8 of the 2020 UWMP.

- **Policy Based Water Efficiency Tools:** The City is currently exploring other policy-based water efficiency tools that other supply-constrained agencies across California have implemented. These policy-based tools are often bundled together and referred to as Water Demand Offset (WDO) or Water Neutrality policies. Through these policies, project developers are generally required to offset the new demand anticipated by the development through some combination of demand mitigation options, such as: on-site retrofits, off-site retrofits, on-site reuse, supply augmentation, and WDO fees.

Water Supply Availability and Reliability Conclusion

As described above, water demand within the City's water service area is not expected to exceed the City's supplies at buildout under normal hydrologic conditions if the City is able to fully implement its future planned projects, which include ASR Program Expansion, Recycled Water Distribution Network and Exchange Program for additional CVP water supplies, and recycled water distribution for non-potable use. During a single dry year or a multiple dry year period, the City must depend more heavily on water conservation efforts, groundwater, and the proposed future supply projects to overcome the gap between supply and demand. Investments in wet year water supplies will also be needed to refill storage in Semitropic and expand the City's ASR Program.

The identified improvements to the recycled water infrastructure as part of the Recycled Water Distribution Network and Exchange Program have been incorporated into the City's Capital Improvement Plan (CIP). Each applicant for development of individual proposals for any of the parcels within the project site would be required to pay applicable development impact fees to ensure they each provide their respective proportionate share of required funding to the City for the completion of the water infrastructure improvements (which includes recycled water infrastructure) as required by Mitigation Measure (MM) UTIL-1a. In addition, each applicant for development of individual proposals for any of the parcels within the project site would be required to pay applicable development impact fees to ensure they each provide their respective proportionate share of required funding to the City for the acquisition, treatment, and delivery of treated potable and recycled water supplies to the project site. Therefore, operational impacts related to need for new water supply facilities as a result of water demand associated with the proposed project would be less than significant with mitigation.

Infrastructure and Treatment Facilities Capacity

The City, through its Public Works Department, would supply potable water (and recycled water when available to the project site). There is a 12-inch water line in Paradise Road; planned water lines that would traverse through the project site have not yet been installed. Potable water service for the proposed project would be provided by the City's existing Pressure Zone 1 (Zone 1) pipelines in Paradise Avenue and Grant Line Road.

The storage requirement for the City's potable water system consists of three components:

- **Operational Storage:** 30 percent of a maximum day demand.

- **Emergency Storage**: 1.5 times an average day demand.
- **Fire Flow Storage:** The required fire flow rate multiplied by the associated fire flow duration period. In larger pressure zones like Zone 1, the City requires the fire flow storage to equal the volume required for two concurrent fire flow events: a Single-Family Residential fire (0.18 million gallons) and an Industrial fire in a sprinklered building (0.96 million gallons).[30] Thus, the total Zone 1 fire flow storage required is 1.14 million gallons.

The required fire flow storage component for this proposed project would be shared with other existing and proposed developments served by Zone 1 and Pressure Zone 2 (Zone 2). However, the proposed project's required operational and emergency storage capacity would be in addition to the requirements from existing buildings and other proposed developments in Zone 1 and Pressure Zone 2 (Zone 2). The required operational and emergency storage components for the proposed project are approximately 0.14 and 0.39 million gallons, respectively. Based on the City's available storage capacity and emergency storage credit in Zones 1 and 2, there is a storage capacity surplus of approximately 2.7 million gallons after accounting for the proposed project's storage requirements.

Peak-hour Demand Evaluation

The proposed project involves three domestic service connection points to the City's potable water system as shown in Exhibit 2-9 in the Project Description: (1) two in Paradise Avenue and (2) one at the eastern end of the 12-inch diameter water main in Grant Line Road. Pursuant to the preliminary site plans for the Tracy Alliance parcels, nearly all the demand for these parcels (i.e., Buildings A and B) would be served from Paradise Avenue (with the much smaller Building B served from Grant Line Road). Since applications for individual development proposals have not been submitted for either the Suvik Farms or Zuriakat parcels at the time of this writing, based on reasonably available information, it was assumed that future demands for those parcels would be served from Grant Line Road given their locations.

Exhibit 3.16-3 displays the service connection points, in addition to the system pressure and pipeline velocities during a peak-hour demand condition. Pressures at service connection points on Paradise Avenue and Grant Line Road are approximately 62 and 61 pounds per square inch (psi), respectively, while pressures at other service locations in Zone 1 remain above 40 psi. No distribution pipelines exceed the maximum pipeline velocity limit of 8 feet per second. Therefore, the proposed domestic service connection points are adequate to meet peak-hour demand created by the proposed project.

Maximum Day Demand Plus Fire Flow Evaluation

To meet the proposed project's fire flow requirements, the water system must be able to provide 4,500 gpm to the proposed project and adjacent industrial sites during a maximum day demand condition while maintaining 20 psi residual system pressure (primary criterion) and pipeline velocities below 12 feet per second (secondary criterion). Exhibit 3.16-4 shows the water infrastructure as currently proposed does not meet a fire flow requirement of 4,500 gpm, as available fire flow along Grant Line Road is between approximately 4,120 and 4,230 gpm. This deficiency is because of the 12-inch diameter dead-end pipeline located east of the intersection of

[30] In sprinklered Industrial buildings, the fire flow requirement is 4,500 gpm for 4 hours, which includes 500 gpm for on-site sprinkler flow. Fire flow storage does not include sprinkler flow, so fire flow storage for sprinklered Industrial buildings is based on 4,000 gpm per 4 hours.

Paradise Road and Grant Line Road, where flow is restricted by the 12 feet per second pipeline velocity limit.

The identified pipeline improvements in the area are not critical, as the existing distribution system can meet fire flow requirements for the proposed project if the secondary pipeline velocity criterion is not met prior to occupancy. However, it is recommended that the proposed project install additional 12-inch diameter pipelines on-site to create loops with the existing public water mains in Paradise Avenue and Grant Line Road. The recommended improvements and updated fire flow evaluation results are shown on Exhibit 3.16-5.

Service Lateral Evaluation

The proposed utility plan for the Tracy Alliance parcels includes three 10-inch-diameter laterals for fire service and three 10-inch-diameter laterals for domestic service. Pipeline velocities for each service lateral were calculated using the fire flow requirements and peak-hour demands specified in the WSA. During a fire flow of 4,500 gpm in a 10-inch fire service lateral, the velocity would be approximately 18 feet per second, exceeding the maximum limit of 12 feet per second. Upsizing the fire service laterals to 14-inch diameter would decrease the velocity to an acceptable 9 feet per second. The domestic service laterals can deliver anticipated peak-hour demands at velocities well below the 8 feet per second limit. Detailed utility plans for the Suvik Farms and Zuriakat parcels are not available at the time of writing since applications for individual development proposals have not been submitted. However, since those parcels should have the same fire flow requirement (4,500 gpm) as the Tracy Alliance parcels, it is reasonable to assume that planned fire service laterals should also be 14-inches in diameter.

Conclusion

The City currently has sufficient storage capacity in Zones 1 and 2 to meet the needs of the proposed project.

Under peak-hour demand conditions, the City's existing water system infrastructure can provide adequate flows and pressures to the proposed project and adjacent sites in the NEI Specific Plan area. Under maximum day demands plus fire flow conditions, the distribution system can deliver fire flows to the proposed project while maintaining 20 psi residual pressure, but the 12-inch diameter dead-end pipeline in Grant Line Road has a velocity exceeding 12 feet per second.

Pursuant to MM UTIL-1b, each applicant for individual development proposals within the project site would be required to provide final engineering plans to the City that include 12 inch diameter pipelines on-site, as shown on Exhibit 3.15-5 and upsized fire service lateral pipelines for review and approval. With implementation of this mitigation measure, the proposed project would meet the City's pipeline velocity criteria.

Wastewater

At operation, the proposed project would require upgraded infrastructure and would result in an increase in wastewater generation compared to existing conditions. As discussed under Impact UTIL-3, because the City of Tracy General Plan (General Plan) designates the site as Industrial, the City has anticipated the industrial use of the project site. With the existing available capacity along with the

anticipated improvements to the WWTP, with an estimated completion date of December 2023 ,[31] prior to the start of operations on the Tracy Alliance parcels, there would be sufficient wastewater capacity and infrastructure facilities available to serve the proposed project. Each applicant for an individual development proposal of any of the parcels within the project site would be required to participate in the implementation of the currently adopted WWMP through the payment of applicable impact fees as required by MM UTIL-3a. Therefore, operational impacts related to need for new wastewater supply infrastructure facilities as a result of wastewater demand would be less than significant with mitigation.

Stormwater

Generation

Compared to existing conditions, the proposed project would result in a substantial increase of impervious surfaces, with a commensurate increase in stormwater runoff. As a result, the proposed project would result in the need for new or expanded storm drainage facilities.

As described in the Project Description, the proposed project includes construction of an on-site stormwater detention basin with pump station on-site. The proposed approximately 12.44-acre on-site stormwater detention basin with a pump station would be located along the northeast site boundary and would connect to the City's NEI detention basin west of the project site (see Exhibit 3.10-1). The proposed project's on-site stormwater detention basin would be required to comply with applicable provisions of the Multi-Agency Post-Construction Stormwater Standards Manual which identifies BMPs to control the potential pollutant load of stormwater runoff. Additionally, Chapter 11.32 of the Municipal Code requires each applicant for its respective individual development proposal within the project site to pay applicable stormwater impact fees in connection with their respective development proposals, which would ensure the operation, maintenance, and replacement of existing and future stormwater facilities. Each applicant for its respective individual development proposal within the project site would be required to prepare a clearly defined Operations and Maintenance (O&M) Plan in connection with its respective individual development proposal to ensure that installed stormwater treatment measures and hydromodification management controls are inspected and properly operated and maintained for the life of the relevant individual development proposal. Therefore, pursuant to the foregoing and with each applicants' compliance with all other applicable laws and regulations, operation-related project impacts related to surface and groundwater and respective water quality would be less than significant.

Infrastructure and Treatment Facilities Capacity

As described above, the proposed project includes construction of an on-site stormwater detention basin.

As noted above, the proposed project would construct a 12-inch forced main storm drain line along Paradise Road at I-205 to connect the proposed project's on-site stormwater detention basin to the City's NEI detention basin,[32] adjacent to the western boundary of the project site. Project discharge

[31] Saffi, Lemar. Assistant Engineer, City of Tracy. Personal communication: email. April 1, 2022.

[32] As of the publication of this Draft EIR, the NEI detention basin is currently operational, and modifications are being completed. It would be available to accept stormwater from the project site once the proposed project is operational.

into the proposed project's on-site stormwater detention basin would be held until the NEI detention basin is drained enough to accept inflow; all stormwaters would eventually discharge into the Eastside Channel.

Bioretention treatment areas would intermittently surround the buildings on the project site and would also be interspersed throughout the parking lots. On-site storm drain lines within the Tracy Alliance parcels would be 12-inches in diameter and would connect the bioretention treatment areas to the proposed project's on-site stormwater detention basin.

The proposed project's on-site stormwater detention basin would be sized to accommodate the stormwater discharge for the Tracy Alliance parcels prior to the start of operations on the Tracy Alliance parcels. Following Phase 1, each subsequent applicant for its respective individual development proposal within the project site would be required to confirm that the proposed project's on-site stormwater detention basin and bioretention treatment areas could accommodate project flows to the satisfaction of the City and that post-development stormwater flow rates would not substantially exceed predevelopment rates pursuant to the applicable C.3 requirements.

Since no applications for individual development proposals have been submitted for either specific the Suvik Farms or Zuriakat parcels at the time of this writing, the exact location and sizing of on-site stormwater drainage facilities and how they would connect to the proposed project's on-site stormwater detention basin are not currently known. However, each applicant for its respective individual development proposal within the project site would be required to prepare a clearly defined O&M Plan in connection with its respective individual development proposal to ensure that installed stormwater treatment measures and hydromodification management controls are inspected and properly operated and maintained for the life of the relevant individual development proposal. This information would be identified and reviewed as part of subsequent engineering and related plans when individual development applications are submitted for these parcels. MM UTIL-1c would require the relevant applicant for the development of the Suvik Farms and Zuriakat parcels to submit engineering plans for the parcels that are the subject to the individual development proposal at issue for review and approval by the City that confirm that post-development stormwater flow rates would not substantially exceed predevelopment rates pursuant to the applicable C.3 requirements and other applicable standards and requirements.

Electric Power

Demand and Consumption

At operation, PG&E would provide electricity to the project site for lighting, appliances, and other associated uses. As discussed in Section 3.6, Energy, the proposed project would be required to comply with the State's then-current Title 24 energy efficiency standards. These standards contain advanced energy efficiency standards and would ensure that the proposed project would not require significant or unplanned new electrical sources. Therefore, operational impacts related to need for new electrical infrastructure facilities as a result of electricity demand would be less than significant.

Infrastructure Facilities Capacity

The proposed project would include new connections from existing electrical lines in Grant Line Road, which have the capacity to serve project operations. As such, the proposed project would not require

the relocation or expansion of electrical infrastructure to serve the increased demand, because it would be served by PG&E with adequate electrical supplies. Therefore, operational impacts related to adequacy and capacity of electrical infrastructure facilities would be less than significant.

Natural Gas

Demand and Consumption

The proposed project could utilize natural gas for heating, which would be provided by PG&E. As discussed in Section 3.6, Energy, the proposed project would be required to be designed and constructed consistent with the State's then-current Title 24 energy efficiency standards. These standards would ensure that the proposed project would not require significant or unplanned new natural gas sources. Therefore, operational impacts related to need for new natural gas supply would be less than significant.

Infrastructure Facilities Capacity

The proposed project would include new connections from existing electrical lines in Grant Line Road, which have the capacity to serve project operations. As such, the proposed project would not require the relocation or expansion of electrical infrastructure to meet project demand, because they would be served by PG&E with adequate electrical supplies. Therefore, operational impacts related to adequacy and capacity of electrical infrastructure facilities would be less than significant.

Telecommunications

Demand

At operation, the proposed project would increase demand for internet and telephone services provided by local telecommunications providers. The building tenants/operators would coordinate with telecommunication providers in order to provide service, which have the capacity to serve project operations. Therefore, operational impacts related to need for new or expanded telecommunications infrastructure facilities as a result of telecommunications demand would be less than significant.

Infrastructure Facilities Capacity

The proposed project is located in an area where existing telecommunications providers already offer internet and telephone services and have sufficient capacity to meet project operational demands. The proposed project would include new connections from existing telecommunications lines within Grant Line Road. As such, at operation the proposed project would not require the relocation or expansion of telecommunications infrastructure, because it would be served by local telecommunications providers with adequate telecommunications capacity and access. Therefore, operational impacts related to need for new telecommunications infrastructure facilities as a result of telecommunications demand would be less than significant.

Level of Significance Before Mitigation

Potentially Significant Impact

Mitigation Measures

Implement MM UTIL-3 (provided in Impact UTIL-3) and the following mitigation measures:

MM UTIL-1a Adherence to Applicable Performance Standards and Payment of Infrastructure Fees

Prior to the issuance of building permits for an individual development proposal, the relevant applicant shall demonstrate compliance of the individual development proposal at issue with applicable performance standards pursuant to the then-current Urban Water Management Plan, Citywide Water System Master Plan, Wastewater Master Plan, and Citywide Storm Drainage Master Plan. In addition, each applicant for an individual development proposal shall pay its respective proportionate share of required funding, subject to applicable laws governing nexus requirements, to the City for completion of relevant planned City Capital Improvement Plan (CIP) improvements.

MM UTIL-1b Submittal of Final Engineering Plans for Tracy Alliance Parcels

Prior to the issuance of the building permit for the first building on the Tracy Alliance parcels, the applicants for the development of the Tracy Alliance parcels shall submit engineering plans to the City of Tracy for review and approval to confirm compliance with this MM UTIL-1b. These plans shall include additional 12-inch diameter pipelines on-site as shown on Exhibit 3.16-5 of this Draft EIR and the fire service laterals shall be upsized to 14-inch diameter.

MM UTIL-1c Submittal of Final Engineering Plans for Suvik Farms and Zuriakat Parcels

Prior to the issuance of the building permit for the first building on the subject parcel, each relevant applicant for the individual development proposal of the Suvik Farms or Zuriakat Parcels, respectively, shall each submit final engineering plans to the City of Tracy for review and approval to confirm compliance with the relevant performance standards including, but not limited to, those pursuant to the current Urban Water Management Plan, Citywide Water System Master Plan, Wastewater Master Plan, and Citywide Storm Drainage Master Plan in effect at the time building permits are requested.

Level of Significance After Mitigation

Less Than Significant Impact

Water Supply

Impact UTIL-2: The proposed project would have sufficient water supplies available to serve the proposed project and reasonably foreseeable future development during normal, dry, and multiple dry years.

Construction

Impacts related to water supplies are limited to operational impacts. No respective construction impacts would occur.

Operation

As described in UTIL-1 and in the WSA, water demand within the City's water service area is not expected to exceed the City's supplies at buildout under normal hydrologic conditions based on the City's existing supplies and implementation of the City's additional future planned projects, which include ASR Program Expansion, Recycled Water Distribution Network and Exchange Program for additional CVP water supplies, and recycled water distribution for non-potable use. During a single dry year or a multiple dry year period, the City must depend more heavily on water conservation efforts, groundwater, and the proposed future supply projects to overcome the gap between supply and demand. Investments in wet year water supplies would also be needed to refill storage in Semitropic and expand the City's ASR Program.

The identified improvements to the recycled water infrastructure as part of the Recycled Water Distribution Network and Exchange Program have been incorporated into the City's CIP. Each applicant for development of individual proposals for any of the parcels within the project site would be required to pay applicable development impact fees to ensure they each provide their respective proportionate share of required funding to the City for the completion of the necessary water infrastructure improvements (which includes recycled water infrastructure) as required by MM UTIL-1a. In addition, each applicant for development of individual proposals for any of the parcels within the project site would be required to pay applicable development impact fees to ensure they each provide their respective proportionate share of required funding to the City for the acquisition, treatment, and delivery of treated potable and recycled water supplies to the project site. Therefore, operational impacts related to need for new water supply facilities as a result of water demand associated with the proposed project would be less than significant with mitigation.

Level of Significance Before Mitigation

Potentially Significant Impact

Mitigation Measures

Implement MM UTIL-1a

Level of Significance After Mitigation

Less Than Significant Impact

Wastewater Treatment Capacity

Impact UTIL-3:	**The proposed project would result in a determination by the wastewater treatment provider, which serves or may serve the proposed project, that it has adequate capacity to serve the proposed project's projected demand in addition to the provider's existing commitments.**

Construction

Impacts related to adequate wastewater treatment capacity are limited to operational impacts. No respective construction impacts would occur.

Operation

Implementation of the proposed project could have a significant impact if the wastewater treatment provider would not have sufficient capacity to serve the proposed new uses in addition to the provider's existing commitments. Because the General Plan designates the site as Industrial, the City has anticipated development of this site with industrial uses.

Each applicant for individual development proposals of any of the parcels within the project site would be required to participate in the implementation of the infrastructure improvements described in the WWMP in effect at the time building permits are requested through the payment of fees as required by MM UTIL-3.

Therefore, impacts related to wastewater treatment capacity for the proposed project would be less than significant with mitigation.

Level of Significance Before Mitigation

Potentially Significant Impact

Mitigation Measures

MM UTIL-3 Payment of Wastewater Infrastructure Fees/Construction of Wastewater Facilities

Prior to the issuance of the first building permit for the subject individual development proposal, the relevant applicant shall participate in the implementation of the Wastewater Master Plan (WWMP) in effect at the time the relevant building permit is requested through the payment of the applicable impact fees as included in the City's Capital Improvement Plan (CIP).

Level of Significance After Mitigation

Less Than Significant Impact

Landfill Capacity and Solid Waste Reduction Goals Consistency

Impact UTIL-4: The proposed project would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.

Construction

During construction, the proposed project would generate solid waste from demolition and removal of existing structures on the project site. The EPA estimates 4.34 pounds per square foot for a nonresidential construction project (defined as lodging, office, commercial, health care, educations, religious, public safety, and manufacturing facilities).[33] The proposed industrial buildings and related improvements would cover approximately 191 acres; therefore, at buildout, the proposed project is expected to generate approximately 36,108,800 pounds or 18,054.4 tons of solid waste during

[33] United States Environmental Protection Agency (EPA). 2003. Estimating 2003 Building-Related Construction and Demolition Materials Amounts. Website: https://www.epa.gov/sites/production/files/2017-09/documents/estimating2003buildingrelatedcanddmaterialsamounts.pdf. Accessed: December 28, 2020.

construction.[34] The estimated project construction schedule expects full buildout around 2025, with roughly 1,095 total number of working days. Spread over the 1,095-working day demolition and construction schedule, this equates to approximately 16.48 tons per day. The Foothill Landfill is permitted to receive 1,500 tons of waste per day.[35] As such, the approximately 16.48 tons per day of construction/demolition debris generated by the proposed project represents a nominal percent (approximately 1 percent) of the quantity of solid waste that the landfill currently accepts on a daily basis. In addition, compliance with applicable local and State laws and regulations would ensure that all construction waste would be conveyed to the appropriate solid waste facility and would be disposed of properly. Therefore, construction impacts related to landfill capacity would be less than significant.

Operation

Using 8.93 pounds per employee per day solid waste generation rate[36](the most recent source provided by CalRecyle), the proposed project's approximately 1,871 employees would generate an estimated 16,708.03 pounds of solid waste per day (8.35 tons), [37] and 6,098,430.95 pounds per year (3,049 tons), assuming operation 365 days per year. As described in Section 3.16.2, Environmental Setting, the MRF has a daily intake capacity of 1,500 tons of solid waste per day, and the permitted capacity of the Foothill Landfill is 138 million cubic yards, of which 125 million cubic yards remains available, with an anticipated closure year of 2082. As a result, the proposed project's estimated 8.35 tons of solid waste per day and 3,049 tons per year represent less than 1 percent of daily permitted capacity and overall landfill capacity. Pursuant to AB 939, cities are required to redirect at least 50 percent of municipal waste; as of 2009, the City of Tracy has exceeded this diversion requirement, in accordance with its goal of reaching 75 percent reduction. The proposed project would be required to adhere to the Tracy Municipal Code Section 5.20.250 "Multi-family, commercial and industrial recycling programs," which requires diversion of waste from landfills through recycling.[38] Therefore, the proposed project would be served by a landfill that contains sufficient capacity, and operational impacts related to landfill capacity and solid waste reduction goals consistency would be less than significant.

Level of Significance

Less Than Significant Impact

Solid Waste Regulations Consistency

Impact UTIL-5:	**The proposed project would comply with federal, State, and local management and reduction statutes and regulations related to solid waste.**

[34] Calculation: 8,320,000 square feet x 4.34 pounds per square feet = 36,108,800 pounds; 36,108,800 pounds/2,000 = 18,054.4 tons.
[35] California Department of Resources Recycling and Recovery (CalRecycle). 2019. SWIS Facility/Site Activity Details: Foothill Sanitary Landfill (39-AA-0004). Website: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1424?siteID=3097. Accessed December 15, 2020.
[36] California Department of Resources Recycling and Recovery (CalRecycle). 2019. Estimated Solid Waste Generation Rates. Website: https://www2.calrecycle.ca.gov/wastecharacterization/general/rates. Accessed: December 28, 2020.
[37] Calculation: 8.93 pounds/employee/day x 1,871 employees = 16,708.03 pounds/day; 16,708.03 pounds/day/2,000 = 8.35 tons/day.
[38] City of Tracy Municipal Code. 2020. Section 5.20.520 – Multi-family, commercial and industrial recycling programs. Website: https://library.municode.com/ca/tracy/codes/code_of_ordinances?nodeId=TIT5SAHE_CH5.20INSOWARE_ART1PU_5.20.010PU. Accessed: December 28, 2020.

Construction

During construction, the proposed project would be required to comply with Chapter 5.20 of the Tracy Municipal Code related to solid waste reduction and recycling measures. Compliance with this regulation would ensure compliance with AB 939 by ensuring construction waste is transferred to facilities that can adequately recycle solid waste. Thus, with compliance with the Tracy Municipal Code and AB 939, the proposed project would be required to comply with applicable solid waste regulations and statutes. Therefore, impacts related to solid waste regulations consistency are less than significant.

Operation

During operation, the proposed project would be required to comply with applicable State and local laws and regulations related to solid waste such as AB 939 and Chapter 5.20 of the Tracy Municipal Code. Adherence to AB 939 and the Tracy Municipal Code would ensure sufficient solid waste collection and transportation is available and would ensure that disposal sites contain sufficient capacity through permit review and inspections and recycling programs are implemented to divert waste. As such, operation of the proposed project would not impede the ability of the City to meet waste diversion requirements or cause the City to violate State and local statutes and regulations related to solid waste. Therefore, with compliance with applicable State and City laws and regulations requiring recycling and waste diversion from landfills, operational impacts related to solid waste regulations consistency would be less than significant.

Level of Significance

Less Than Significant Impact

3.16.5 - Cumulative Impacts

Water

The geographic scope of the cumulative potable water analysis is the service area of the City, which provides potable water to residents and businesses within the City service area. The WSA evaluates the adequacy of the City's total project water supplies, including existing water supplies and future planned water supplies, to meet the City's existing and projected future water demands, including those future water demands associated with the proposed project, under all hydrological conditions (Normal Years, Single Dry Years, and Multiple Dry Years).

Cumulative projects, including those listed in Table 3-1 (refer to Chapter 3, Environmental Impact Analysis, Table 3-1, Cumulative Projects), are located within the areas of the City of Tracy, San Joaquin County, and on Caltrans-owned land within 10 miles of the project site for which the City provides water treatment service. As discussed under Impact UTIL-2, a WSA was completed for the proposed project that evaluated projected water demand associated with the proposed project, in addition to existing and other planned future users within the City's service area. Water demand within the City's water service area is not expected to exceed the City's supplies at buildout under normal hydrologic conditions based on the City's existing supplies coupled with the implementation of its additional future planned projects, which include ASR Program Expansion, Recycled Water Distribution Network and Exchange Program for additional CVP water supplies, and recycled water

distribution for non-potable use. During a single dry year or a multiple dry year period, the City must depend more heavily on water conservation efforts, groundwater, and the proposed future supply projects to overcome the gap between supply and demand. Investments in wet year water supplies will also be needed to refill storage in Semitropic and expand the City's ASR Program.

Developers of the other cumulative projects would be required to pay their proportionate share of required funding to the City for completion of water infrastructure improvements (which includes recycled water infrastructure) as included in the City's CIP. In addition, cumulative projects, such as those listed in Table 3-1, would be required to comply with provisions of the applicable laws and regulations in the Municipal Code and CALGreen related to water conservation. Therefore, cumulative impacts would be less than significant.

As discussed above, the proposed project would also be required to comply with City/County ordinances and General Plan policies, as well as other laws and regulations that address water supply. The proposed project would also be required to pay applicable impact fees to help facilitate the completion of necessary water infrastructure. For these reasons, the proposed project would not have a cumulatively considerable contribution toward this less than significant cumulative impact related to water supply and treatment.

Wastewater

The geographic scope of the cumulative wastewater analysis is the service area of the City, which provides wastewater collection and treatment services for the City and its service area.

The City has estimated wastewater generated from its existing and future development in the service area and forecasted the needed facility upgrades. The forecast included treatment facility upgrades needed to accommodate existing needs and the planned growth in the service area and to maintain compliance with applicable regulatory standards for wastewater treatment and discharge.

The cumulative projects, including those listed in Table 3-1, located in the City are within the service area and would generate volumes of wastewater conveyed to and treated at the WWTP. Cumulative projects not located in the City or its service area would convey wastewater to the applicable wastewater treatment plant and are not included in this cumulative analysis. The City has anticipated planned growth and determined that capacity would exist to service the demand for wastewater treatment facilities given the existing capacity coupled with the upgrades discussed in Impact UTL-3. Projects within the service area would participate in the implementation of the WWMP in effect at the time building permits are applied for through the payment of applicable fees and/or the construction of WWMP facilities with corresponding applicable fee credits/reimbursements, as established by the WWMP in effect at the time building permits are issued. Accordingly, cumulative impacts would be less than significant.

Additionally, the proposed project's contribution to this less than significant cumulative impact would not be cumulatively considerable. Each applicant for individual development proposals on any of the parcels within the project site would be required to comply with the applicable WWMP requirements and be responsible for the payment of applicable impact fees and/or construction of wastewater facilities to serve the project site with corresponding applicable fee

credits/reimbursements (see MM UTIL-3), as applicable to the particular parcel and development. Therefore, the proposed project's contribution to this less than significant impact related to wastewater generation and treatment would not be cumulatively considerable.

Storm Drainage

The geographic scope of the cumulative analysis of storm drainage is projects within the East Side Industrial future service area, consisting of areas that drain to the storm drainage system and to the San Joaquin Delta.

The cumulative projects within the East Side Industrial future service area include Cumulative Project 14 and Cumulative Project 35, which are in urban and urban/rural transition. Cumulative Project 14 is an industrial project, which is consistent with the land uses assumed by the City. Project 35 is the I-205/Chrisman Road Interchange project, which would undergo its own CEQA review, which would evaluate and be required to mitigate any potential significant impacts with storm drainage pursuant to applicable laws and regulations. In addition, consistent with measures in the Tracy Municipal Code and other applicable standards and requirements, all development in the City would be required to incorporate a stormwater control plan and stormwater collection systems into the development that would in turn reduce the volume and velocity of stormwater runoff that cumulative projects would generate to adhere to applicable performance standards. Therefore, cumulative impacts in this regard would be less than significant.

As described in the Project Description, the proposed project includes construction of an on-site stormwater detention basin with a pump station on-site that, together with the NEI detention basin, would provide sufficient capacity to accommodate stormwater runoff associated with the proposed project and the other cumulative projects including those listed in Table 3-1. Therefore, the proposed project's contribution to this less than significant impact related to storm drainage would not be cumulatively considerable. (See also Section 3.10, Hydrology and Water Quality).

Solid Waste

The geographic scope of the cumulative solid waste analysis is the service area of the Tracy Delta Solid Waste Management, Inc., which operates solid waste landfills and oversees regional waste diversion programs. Solid waste and recycling collection services would be provided by Tracy Delta Solid Waste Management, Inc.

Cumulative projects, including those listed in Table 3-1 consist predominantly of residential, commercial, and light industrial uses. However, as with the surrounding areas, new cumulative development (residential and nonresidential) would increase demand on solid waste facilities to receive, process, and store solid waste. Existing solid waste facilities provide sufficient capacity to serve all development anticipated in the City, as well as existing, planned, and probable future land uses in the City for the foreseeable future.

The Foothill Landfill has a permitted capacity of 138 million cubic yards, with 125 million cubic yards of remaining capacity that can meet anticipated demand through the facility's closure date of 2082. Additionally, other cumulative projects within the cumulative geographic context, would be required to comply with applicable federal, State and local laws, regulations and policies to address and

mitigate, as necessary, any potentially significant impacts related to solid waste. For these reasons, cumulative impacts to solid waste would be less than significant.

The proposed project's contribution to this less than significant cumulative impact would not be cumulatively considerable. The anticipated waste volume of development associated with the proposed project represents less than 1 percent of the landfill's permitted daily capacity. Therefore, the proposed project, in conjunction with other cumulative projects, would result in a less than significant cumulative impact related to solid waste generation and landfill capacity.

Energy

Cumulative analysis with respect to Energy is addressed in Section 3.6, Energy.

Telecommunications

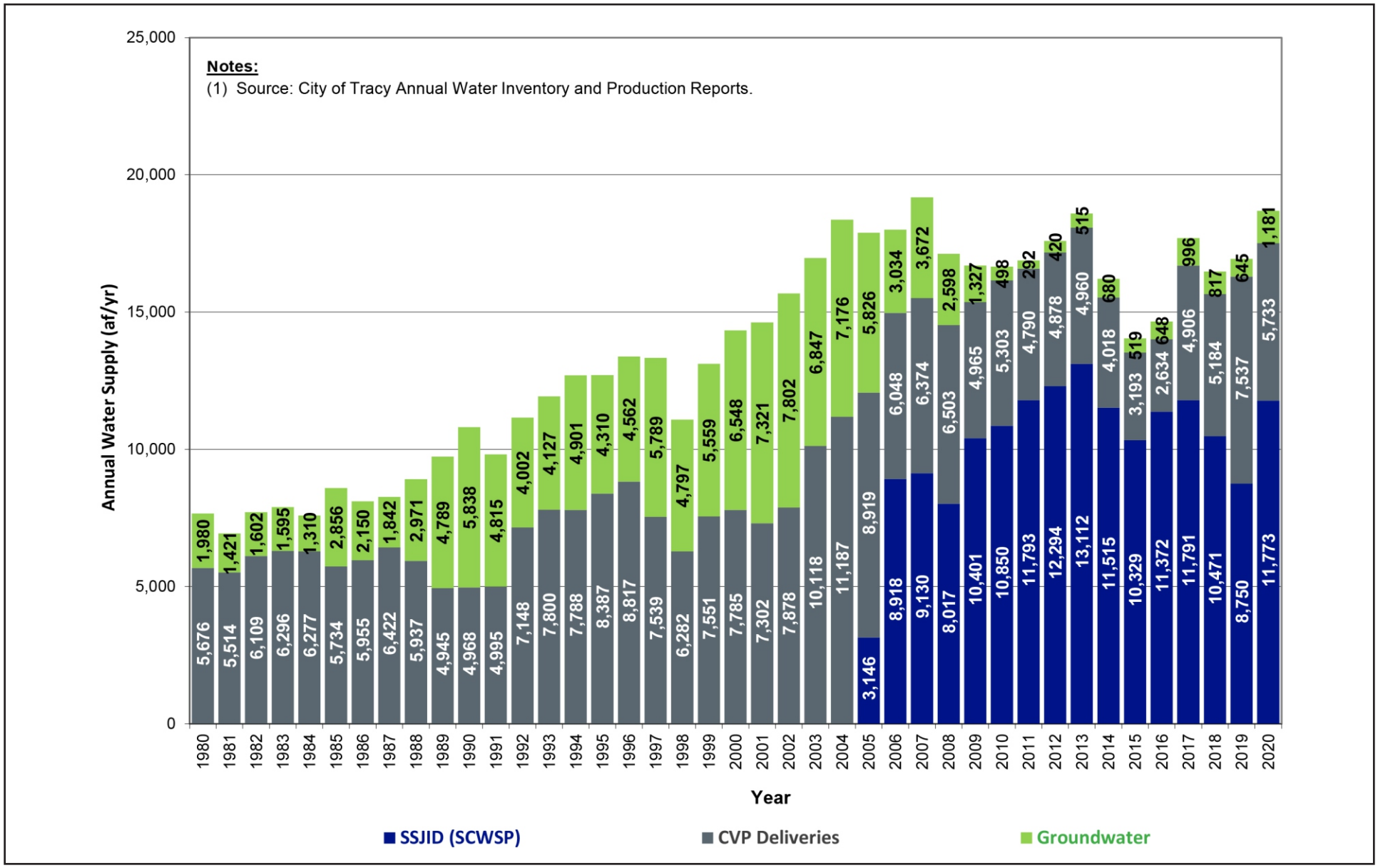
Cumulative projects would increase demand for internet and telephone services provided by local telecommunications providers. These cumulative projects would coordinate with telecommunication providers to provide service, and would be required to ensure there is sufficient capacity to serve each project, through analysis and adequate mitigation, as necessary. For these reasons, cumulative impacts with respect to telecommunications would be less than significant.

The proposed project would also coordinate with telecommunication providers to provide service, which has capacity to serve project operations, and the proposed project's contribution to the less than significant cumulative impact would not be cumulatively considerable. Therefore, the proposed project, in conjunction with other cumulative projects, would result in a less than significant cumulative impact related to telecommunications.

Level of Significance

Less Than Significant Impact

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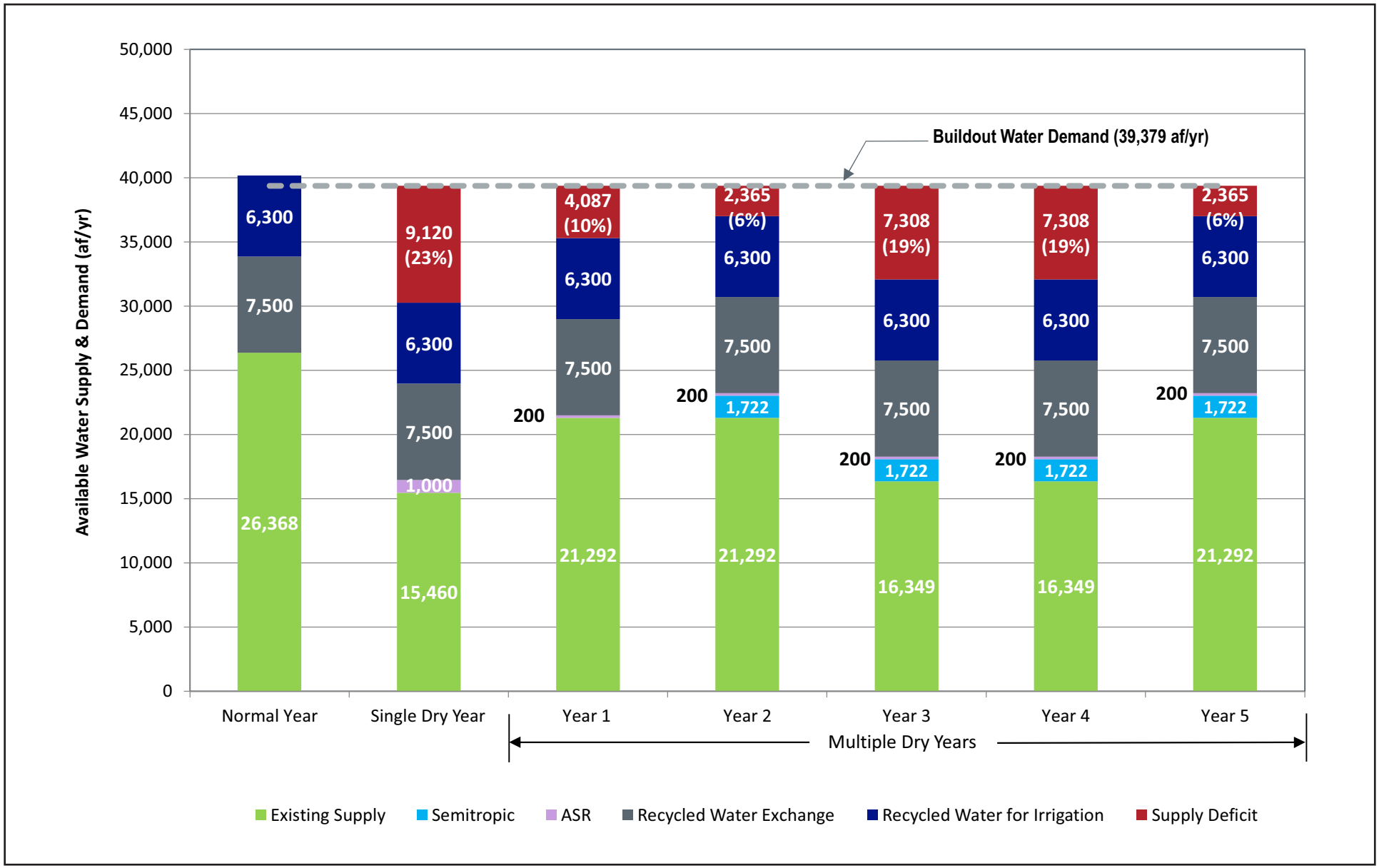


Source: West Yost, December 14, 2021.

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Exhibit 3.16-1
City of Tracy Historical Potable Water Supplies

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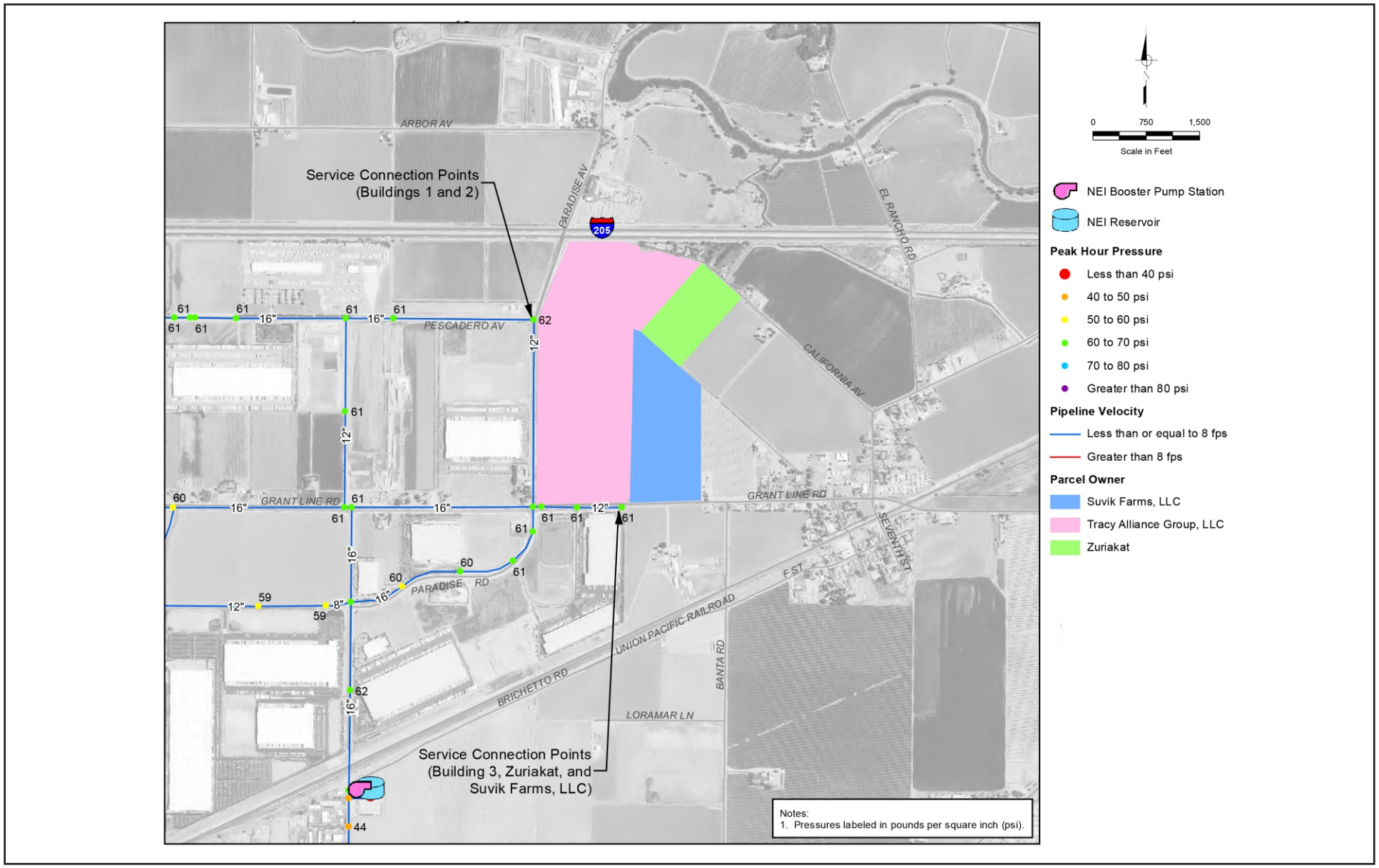


Source: West Yost, August 9, 2021.

FIRSTCARBON SOLUTIONS™

Exhibit 3.16-2
City of Tracy Existing and Planned Future
Potable Water Supplies vs. Projected Demand - Buildout

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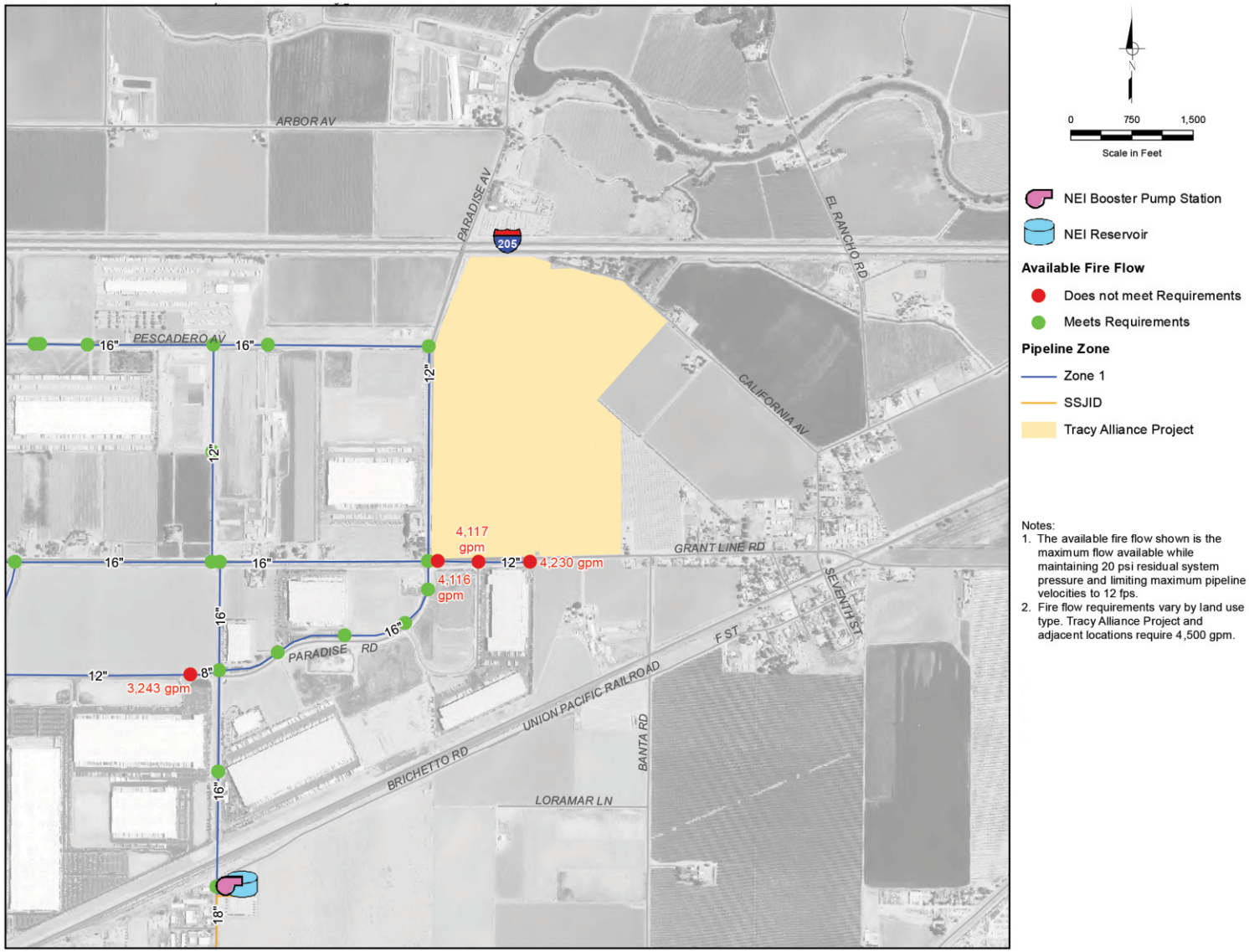


Source: West Yost, November 18, 2020.

FIRSTCARBON SOLUTIONS™

Exhibit 3.16-3
Peak Hour Results

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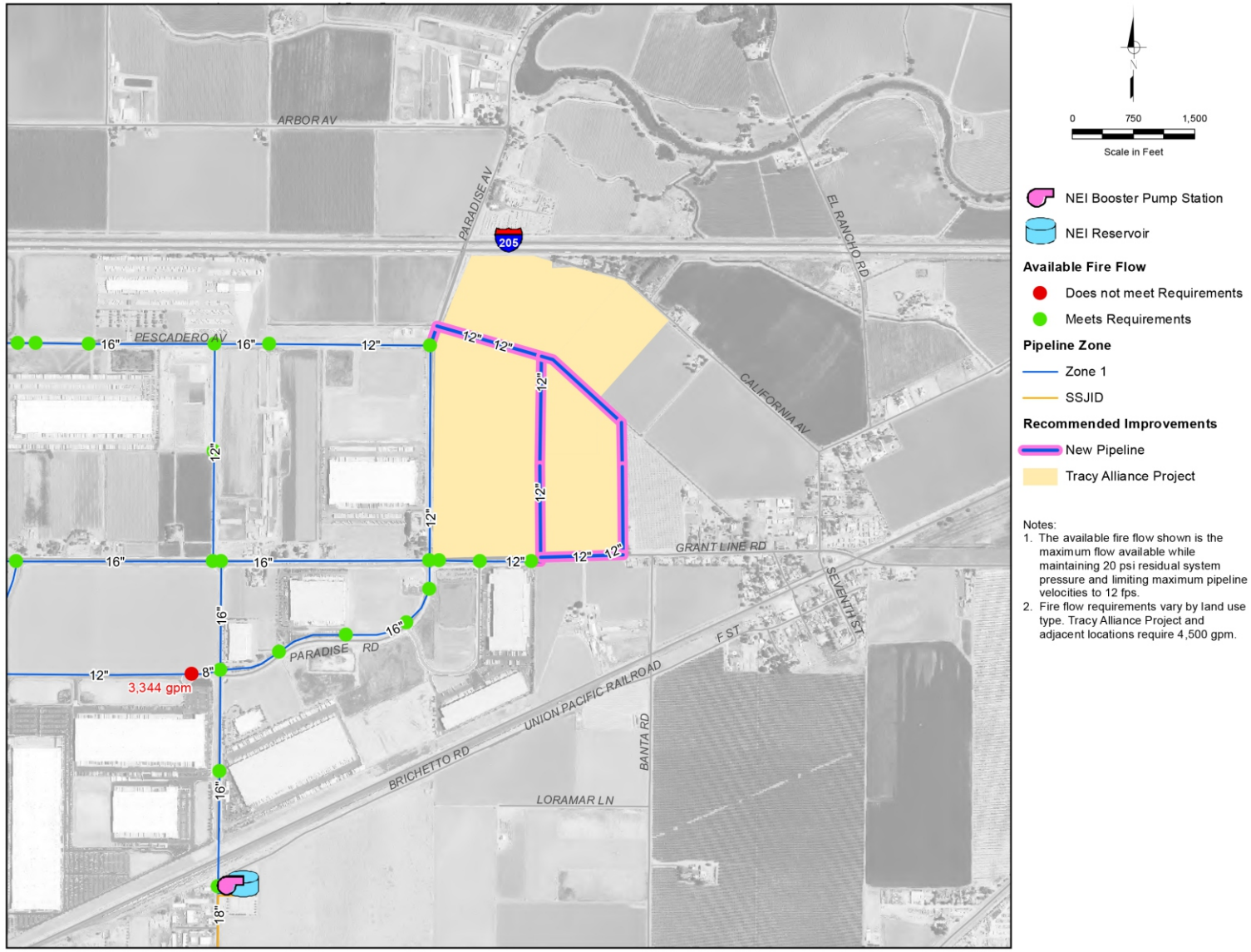


Source: West Yost, November 18, 2020.

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Exhibit 3.16-4
Fire Flow Results

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Source: West Yost, November 18, 2020.

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Exhibit 3.16-5
Fire Flow Results with WSA Recommended Improvements

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3.17 - Wildfire

3.17.1 - Introduction

This section describes the existing wildfire conditions on the project site and vicinity as well as the relevant regulatory framework. This section also evaluates the potential impacts related to wildfire that could result from implementation of the proposed project. Information in this section is based, in part, on information provided by the City of Tracy 2035 General Plan (General Plan), California Air Resources Board (ARB), California Department of Forestry and Fire Protection (CAL FIRE), and the Tracy Fire Department. No public comments were received during the Notice of Preparation (NOP) scoping period related to wildfire.

3.17.2 - Environmental Setting

Wildfire Hazard Area Designations

City of Tracy

The City of Tracy contains mostly urban and suburban uses with relatively little open space or foothill areas susceptible to wildfire hazards. The southwestern most areas within the City's Sphere of Influence (SOI) contain some "Moderate" fire hazard zones. According to CAL FIRE, there are no Very High Fire Hazard Severity Zones in San Joaquin County, and therefore none in the City of Tracy.

Project Site

The project site is not located in a "Fire Hazard Severity Zone" in a State responsibility area or a "Very High Fire Hazard" zone in a local, State, or federal responsibility area.[1,2]

The closest mapped Fire Hazard Severity Zone is a Local Responsibility Area (LRA) Moderate Zone located approximately 3 miles northwest of the project site, at the outer city limits of the City of Lathrop. There is another LRA Moderate Zone located approximately 5 miles to the southwest of the project site just outside of the City of Tracy city limits.[3] The closest State Responsibility Area (SRA) is over 7 miles southwest of the project site.[4]

Wildfire Conducive Conditions

Grassland or other vegetation in California is easily ignited, particularly in dry seasons. Wildfire is a serious hazard in high dry fuel load areas, particularly near areas of natural vegetation and steep slopes since fires tend to burn more rapidly on steeper terrain. Wildfire is also a serious hazard in

[1] California Department of Forestry and Fire Protection (CAL FIRE). 2007. San Joaquin County: Draft Fire Hazard Severity Zones in LRA. Website: https://osfm.fire.ca.gov/divisions/wildfire-planning-engineering/wildland-hazards-building-codes/fire-hazard-severity-zones-maps/. Accessed April 9, 2020.

[2] CA.gov. 2021. State Responsibility Area. Website: https://gis.data.ca.gov/datasets/5bc422648cf045f38d10e1630fb71a71_0?geometry=-122.077%2C37.605%2C-121.034%2C37.795. Accessed February 11, 2021.

[3] California Department of Forestry and Fire Protection (CAL FIRE). 2007. San Joaquin County: Draft Fire Hazard Severity Zones in LRA. Website: https://osfm.fire.ca.gov/divisions/wildfire-planning-engineering/wildland-hazards-building-codes/fire-hazard-severity-zones-maps/. Accessed April 9, 2020.

[4] CA.gov. 2021. State Responsibility Area. Website: https://gis.data.ca.gov/datasets/5bc422648cf045f38d10e1630fb71a71_0?geometry=-122.077%2C37.605%2C-121.034%2C37.795. Accessed February 11, 2021.

areas of high wind, given that fires will travel faster and farther geographically when winds are higher. Furthermore, wildfire is more likely in areas where electric power lines are located above ground where they may encounter vegetation or building materials.

City of Tracy

The City contains areas of highly flammable vegetation and typically has warm, dry summers that can contribute to wildfire conducive conditions. Areas at risk of wildfire impacts are the outlying residential land uses at the perimeter of the city limits and open land adjacent to these areas.[5]

Project Site

The project site is located adjacent to the northeastern most portion of the City of Tracy. The project site is relatively flat and low in elevation (approximately 15-30 feet above mean sea level) with a gentle topographic slope in the northeast direction.[6] The project site is primarily undeveloped but has been consistently managed as part of the agricultural operations, and thus contains minimal vegetation that is dry in summer and autumn months. The project site is currently occupied by a few existing residences and agricultural structures. In addition, there are streetlights and above-ground power and telecommunication lines in various locations surrounding the project site.

Emergency and Evacuation Routes/Access

City of Tracy

The City has established emergency preparedness procedures to respond to a variety of natural and man-made disasters. These procedures are outlined in the City of Tracy Emergency Plan. The Emergency Plan establishes the Standardized Emergency Management System (SEMS) required by State law, and includes information on mutual aid agreements, hierarchies of command, and different levels of response in emergency situations. The Emergency Plan also explains the functions of the Emergency Operations Center (EOC), which is a designated location for centralized management of coordinated emergency response. There are no specific evacuation routes identified in the Comprehensive Emergency Management Plan.[7]

Project Site

The most likely evacuation routes from the project site would be Interstate 205 (I-205) and Grant Line Road (in the east–west direction), and Paradise Road, I-5, and Tracy Boulevard (in the north–south direction).

Post-fire Slope Instability and Drainage Pattern Changes

Slope instability from wildfire scarring of the landscape can result in slope instability in the form of more intensive flooding and landslides. These post-fire slope soils and altered drainage patterns can more easily creep away downslope sides of foundations and reduce lateral support.

[5] Design, Community & Environment (DCE). 2005. City of Tracy General Plan EIR.
[6] Terracon Consultants, Inc. 2018. Phase I Environmental Site Assessment: Tracy Ridge. December 21.
[7] Design, Community & Environment (DCE). 2005. City of Tracy General Plan EIR.

City of Tracy

The City of Tracy does not contain existing unstable slopes that have been impacted by previous wildfires or post-fire drainage pattern changes.

Project Site

The project site has not been impacted from previous wildfire damage or post-fire drainage pattern changes. As described previously, the project site contains relatively level elevation and does not contain steep slopes.

3.17.3 - Regulatory Framework

Federal

United States Department of Interior

Review and Update of the 1995 Federal Wildland Fire Management Policy

1. Safety—Firefighter and public safety is the first priority. All Fire Management Plans and activities must reflect this commitment.
2. Fire Management and Ecosystem Sustainability—The full range of fire management activities will be used to help achieve ecosystem sustainability, including its interrelated ecological, economic, and social components.
3. Response to Wildland Fire—Fire, as a critical natural process, will be integrated into land and resource management plans and activities on a landscape scale, and across agency boundaries. Response to wildland fire is based on ecological, social, and legal consequences of the fire. The circumstances under which a fire occurs, and the likely consequences on firefighter and public safety and welfare, natural and cultural resources, and values to be protected dictate the appropriate management response to the fire.
4. Use of Wildland Fire—Wildland fire will be used to protect, maintain, and enhance resources and, as nearly as possible, be allowed to function in its natural ecological role. Use of fire will be based on approved Fire Management Plans and will follow specific prescriptions contained in operational plans.
5. Rehabilitation and Restoration—Rehabilitation and restoration efforts will be undertaken to protect and sustain ecosystems, public health, and safety, and to help communities protect infrastructure.
6. Protection Priorities—The protection of human life is the single, overriding priority. Setting priorities among protecting human communities and community infrastructure, other property and improvements, and natural and cultural resources will be based on the values to be protected, human health and safety, and the costs of protection. Once people have been committed to an incident, these human resources become the highest value to be protected.
7. Wildland Urban Interface—The operational roles of federal agencies as partners in the wildland urban interface (WUI) are wildland firefighting, hazardous fuels reduction, cooperative prevention and education, and technical assistance. Structural fire suppression

is the responsibility of tribal, State, or local governments. Federal agencies may assist with exterior structural protection activities under formal Fire Protection Agreements that specify the mutual responsibilities of the partners, including funding. (Some federal agencies have full structural protection authority for their facilities on lands they administer, and may also enter into formal agreements to assist State and local governments with full structural protection).

8. Planning—Every area with burnable vegetation must have an approved Fire Management Plan. Fire Management Plans are strategic plans that define a program to manage wildland and prescribed fires based on the area's approved land management plan. Fire Management Plans must provide for firefighter and public safety; include fire management strategies, tactics, and alternatives; address values to be protected and public health issues; and be consistent with resource management objectives, activities of the area, and environmental laws and regulations.
9. Science—Fire Management Plans and programs will be based on a foundation of sound science. Research will support ongoing efforts to increase our scientific knowledge of biological, physical, and sociological factors. Information needed to support fire management will be developed through an integrated interagency fire science program. Scientific results must be made available to managers in a timely manner and must be used in the development of land management plans, Fire Management Plans, and implementation plans.
10. Preparedness—Agencies will ensure their capability to provide safe, cost-effective fire management programs in support of land and resource management plans through appropriate planning, staffing, training, equipment, and management oversight.
11. Suppression—Fires are suppressed at minimum cost, considering firefighter and public safety, benefits, and values to be protected, consistent with resource objectives.
12. Prevention—Agencies will work together and with their partners and other affected groups and individuals to prevent unauthorized ignition of wildland fires.
13. Standardization—Agencies will use compatible planning processes, funding mechanisms, training and qualification requirements, operational procedures, values to be protected methodologies, and public education programs for all fire management activities.
14. Interagency Cooperation and Coordination—Fire management planning, preparedness, prevention, suppression, fire use, restoration and rehabilitation, monitoring, research, and education will be conducted on an interagency basis with the involvement of cooperators and partners.
15. Communication and Education—Agencies will enhance knowledge and understanding of wildland fire management policies and practices through internal and external communication and education programs. These programs will be continuously improved through the timely and effective exchange of information among all affected agencies and organizations.

16. Agency Administrator and Employee Roles—Agency administrators will ensure that their employees are trained, certified, and made available to participate in the wildland fire program locally, regionally, and nationally as the situation demands. Employees with operational, administrative, or other skills will support the wildland fire program, as necessary. Agency administrators are responsible and will be held accountable for making employees available.
17. Evaluation—Agencies will develop and implement a systematic method of evaluation to determine effectiveness of projects through implementation of the 2001 Federal Fire Policy. The evaluation will assure accountability, facilitate resolution of areas of conflict, and identify resource shortages and agency priorities.

State Regulations

California Emergency Response Plan

California has developed an emergency response plan to coordinate emergency services provided by federal, State, and local governments and private agencies. Responding to a hazardous material incident is one part of this plan. The plan is administered by the California Governor's Office of Emergency Services, which coordinates the responses of other agencies. When San Joaquin County experiences an emergency, an EOC may be opened. In the event an EOC is opened, emergency response team members coordinate efforts and work with local fire and police agencies, emergency medical providers, the California Highway Patrol (CHP), CAL FIRE, California Department of Fish and Wildlife (CDFW), and the California Department of Transportation (Caltrans).

California Department of Forestry and Fire Protection Threat Potential Mapping

CAL FIRE has mapped fire threat potential throughout California. CAL FIRE maps fire threat based on the availability of fuel and the likelihood of an area burning (based on topography, fire history, and climate). The threat levels include no fire threat, moderate, high, and very high fire threat. Further, the maps designate San Joaquin County as the LRA for the project site. Additionally, CAL FIRE produced a 2010 Strategic Fire Plan for California, which contains goals, objectives, and policies to prepare for and mitigate the effects of fire on California's natural and built environments. The CAL FIRE Office of the State Fire Marshal provides oversight of enforcement of the California Fire Code as well as overseeing hazardous liquid pipeline safety.

California Building Code

The State of California provided a minimum standard for building design through the 2019 California Building Standards Code (CBC), which is located in Part 2 of Title 24 of the California Code of Regulations. The 2019 CBC is based on the 2015 International Building Code, but has been modified for California conditions, and is considered the most stringent in the nation. It is generally adopted on a jurisdiction by-jurisdiction basis, subject to further modification based on local conditions. Commercial and residential buildings are plan-checked by local City and County building officials for compliance with the CBC. Typical fire safety requirements of the CBC include the installation of sprinklers in all new high-rise buildings and residential buildings; the establishment of fire resistance standards for fire doors, building material; and particular types of construction.

California Public Resources Code

The California Public Resources Code includes fire safety regulations that restrict the use of equipment that may produce a spark, flame, or fire; require the use of spark arrestors[8] on construction equipment that use an internal combustion engine; specify requirements for the safe use of gasoline-powered tools in fire hazard areas; and specify fire suppression equipment that must be provided on-site for various types of work in fire prone areas.

These regulations include the following:

- Earthmoving and portable equipment with internal combustion engines would be equipped with a spark arrestor to reduce the potential for igniting a wildland fire (Public Resources Code [PRC] § 4442).
- Appropriate fire suppression equipment would be maintained during the highest fire danger period—from April 1 to December 1 (PRC § 4428).
- On days when a burning permit is required, flammable materials would be removed to a distance of 10 feet from any equipment that could produce a spark, fire, or flame, and the construction contractor would maintain the appropriate fire suppression equipment (PRC § 4427).
- On days when a burning permit is required, portable tools powered by gasoline-fueled internal combustion engines would not be used within 25 feet of any flammable materials (PRC § 4431).

Local Regulations

City of Tracy

City of Tracy Local Hazard Mitigation Plan

The City of Tracy updated its Hazard Mitigation Plan (HMP) in September of 2019. The HMP identifies potential natural and human-made hazards, assesses their potential risks, and includes mitigation methods to reduce risks and determined the City is susceptible to floods, wildfires, severe weather, and earthquake hazards. The HMP includes 20 mitigation actions including emergency response and evaluation plans, public outreach, building safety and retrofitting, emergency preparedness coordination, education, facility upgrades, and monitoring actions. The HMP contains the following goals aimed at reducing the vulnerability from natural hazards within the City:

Goal 1 Minimize loss of life and property from hazards.

Goal 2 Support community resilience through continuity of essential services during a hazard event.

Goal 3 Increase education and awareness of vulnerability to and mitigation of hazards.

Goal 4 Improve City coordination and capabilities to mitigate hazards.

[8] A spark arrestor is any device that prevents the emission of flammable debris from a combustion source (i.e., fireplaces, internal combustion engines, and wood burning stoves).

City of Tracy General Plan

The City of Tracy General Plan Safety Element contains the following goals, objectives, and policies related to wildland fire hazards:

Goal SA-3–Protection of Lives and Property from Wildland Fire Hazards

Objective SA-3.1: Evaluate the potential for wildland fire hazards when considering new development.

Policies

Policy P1 All development in areas of potential wildland fire hazards shall include the following: clearance around structures, fire-resistant ground cover, and fire-resistant roofing materials.

Policy P2 Development in areas with steep terrain shall be restricted as necessary in order to ensure fire safety.

Policy P3 New development shall satisfy fire flow and hydrant requirements, street widths, and design requirements as established by the City.

City of Tracy Municipal Code

Chapter 11.08 Regulations For Underground Utilities

The City of Tracy Council may require installation of underground utilities when the public necessity, health, safety, or welfare requires such. The Council has the authority to declare a designated area an Underground Utility District and order removal of existing overhead utility facilities and underground installation.

3.17.4 - Impacts and Mitigation Measures

According to the California Environmental Quality Act (CEQA) Guidelines Appendix G Environmental Checklist, to determine whether wildfire impacts would be considered significant from implementation of the proposed project, the following questions are analyzed and evaluated. If located in or near state responsibility areas or lands classified as Very High Fire Hazard Severity Zones, would the proposed project:

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

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

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

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

Approach to Analysis

The project site is not located in a "Fire Hazard Severity Zone," nor is it located in an SRA or a "Very High Fire Hazard" zone in a local, State, or federal responsibility area. The closest mapped Fire Hazard Severity Zone is an LRA Moderate Zone located approximately 3 miles northwest of the project site, at the outer city limits of the City of Lathrop. There is another LRA Moderate Zone located approximately 5 miles to the southwest of the project site just outside of the City of Tracy city limits. The closest SRA is over 7 miles southwest of the project site. The project site is not identified as a community at risk from wildfire by CAL FIRE's "Fire Risk Assessment Program." Communities at risk from wildfire are those places within 1.5 miles of areas of High or Very High wildfire threat as determined from California Department of Forestry-Fire and Resource Assessment Program (CDF-FRAP) fuels and hazard data.

The following analysis is based, in part, on information provided by the City of Tracy General Plan, the City of Tracy Local HMP, and CAL FIRE. The information obtained from these sources and other relevant materials was reviewed to evaluate the potential presence of wildfire risks on the project site and potential impacts related thereto.

Impact Evaluation

Emergency Response/Evacuation Plan Consistency

Impact WILD-1: The proposed project would not substantially impair an adopted emergency response plan or emergency evacuation plan.

Because the project site is not located in "Fire Hazard Severity Zone," nor is it located in an SRA or a "Very High Fire Hazard" in a local, State, or federal responsibility area, it does not meet the threshold for a potentially significant impact set forth in Section XX of Appendix G of the CEQA Guidelines. Nonetheless, to thoroughly consider the potential wildfire risks associated with the proposed development of the project site, and in the interest of public safety and full disclosure, the City has considered each of the risk categories set forth in Section XX.

Construction

During construction, it is expected that construction equipment and vehicles would access and leave the project site, which in turn could potentially impede evacuation or Emergency Vehicle Access (EVA). However, for the reasons set forth under Impact TRANS-4 in Section 3-14, Transportation, and Impact HAZ-6 in Section 3-9, Hazards and Hazardous Materials, construction of the proposed project would result in a less than significant impact related to EVA. In addition, the proposed project would be designed in compliance with applicable provisions of the HMP, ensuring efficient response to emergency incidents associated with emergencies affecting the City. The HMP does not include specific identified evacuation routes. However, main arterial roads that are in the vicinity and readily accessible, which could reasonably be assumed to serve as emergency evacuation routes in the project vicinity, would be Interstate 205 (I-205) in the east–west direction and I-5 in the north–south direction, as well as Paradise Road and Grant Line Road. Given there are several alternate main arterial roads that provide access to these evacuation routes, the proposed project's construction would not substantially impair these evacuation routes.

Operation

For the reasons set forth in Section 3.13, Public Services, Impact PUB-1 and Impact PUB-2, the proposed project would be adequately served by police and fire services, including respective evacuation and EVA. The proposed project would not create a permanent residential increase in population unaccounted for in the General Plan that could lead to overwhelming calls for emergency services. Additionally, given the nature of the proposed project, it is not expected that the proposed project would trigger the need for significant additional law enforcement, fire protection, or emergency services. In addition, the proposed project would be designed in accordance with the applicable City standards to accommodate EVA by providing more than two points of access to the project site that would be available to emergency vehicles. It would also be designed such that the street network and other project improvements would be consistent with all applicable Fire Code requirements and standards.

Blockage of an evacuation route would not occur during project operation because the proposed project would not result in permanent road closures along Paradise Road, Grant Line Road, or I-205, which are the most likely evacuation routes from the project site. As required by General Plan Policies SA-3-1, Policy 1, and SA-3-1, Policy 2, the proposed project would be required to include the mandated clearance around structures and would be required to incorporate fire-resistant building materials fire flow and hydrant requirements, and adequate street widths to ensure compliance with applicable General Plan safety goals, and with the applicable requirements of the San Joaquin County Emergency Operations Plan and relevant Fire Code provisions.

In conclusion, because the project site is not located in "Fire Hazard Severity Zone," nor is it located in an SRA or a "Very High Fire Hazard" in a local, State, or federal responsibility area, it does not meet the threshold for a potentially significant impact set forth in Section XX of Appendix G of the CEQA Guidelines. There would be no impact.

Level of Significance

No Impact

Expose Project Occupants to Pollutant Concentration from Wildfire

Impact WILD-2:	**Due to slope, prevailing winds, and other factors, the proposed project would not exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.**

Because the project site is not located in "Fire Hazard Severity Zone," nor is it located in an SRA or a "Very High Fire Hazard" in a local, State, or federal responsibility area, it does not meet the threshold for a potentially significant impact set forth in Section XX of Appendix G of the CEQA Guidelines. Nonetheless, to thoroughly consider the potential wildfire risks associated with the proposed development of the project site, and in the interest of public safety and full disclosure, the City has considered each of the risk categories set forth in Section XX.

Construction

Impacts related to exposure of project occupants to pollutants concentrations from wildfire are limited to operational impacts. No respective construction impacts would occur.

Operation

The project site is located adjacent to the northeastern city limit. The area surrounding the project site is mostly agricultural land and light industrial warehouses. The unincorporated community of Banta lies southeast of the project site. As such, the project site is surrounded by urban development without steep terrain or unmanaged open space areas that would be prone to wildfires. The closest open space area, the Ohlone Regional Wilderness, is located approximately 7 miles southwest of the project site.

The ARB monitors air quality in the San Joaquin Valley at a number of stations. The closest station to the project site is located at the Tracy Airport, at 5749 South Tracy Boulevard, approximately 5.12 miles southwest of the project site. According to the ARB, the maximum wind speed ranged from approximately 6 to 33 miles per hour (mph) in 2020.[9] In addition, the project site has not previously experienced wildfire. Given that the project site does not experience consistent high winds and it is not located in or near an area of steep terrain or an area experiencing historical wildfire, the project site would not be prone to greater wildfire risk.

As described previously, neither the City nor the project site are in a Severe or Very High Fire Hazard Severity Zone as designated by CAL FIRE. The closest fire prone areas located in a designated fire hazard zone are the southwest areas of the City's SOI, over 7 miles southwest of the project site. For the reasons set forth in Section 3.13, Public Services, Impact PUB-1 and Impact PUB-2, the proposed project would be adequately served by fire protection and emergency services from the Tracy Fire Department. Furthermore, project structures would be required to comply with applicable provisions of the California Fire Code with regard to emergency access and use of building materials that would limit the spread of wildfire to the greatest extent feasible.

In conclusion, because the project site is not located in "Fire Hazard Severity Zone," nor is it located in an SRA or a "Very High Fire Hazard" in a local, State, or federal responsibility area, it does not meet the threshold for a potentially significant impact set forth in Section XX of Appendix G of the CEQA Guidelines. There would be no impact.

Level of Significance

No Impact

Infrastructure That Exacerbates Fire Risk

Impact WILD-3:	**The proposed project would not require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.**

Because the project site is not located in "Fire Hazard Severity Zone," nor is it located in an SRA or a "Very High Fire Hazard" in a local, State, or federal responsibility area, it does not meet the threshold for a potentially significant impact set forth in Section XX of Appendix G of the CEQA Guidelines. Nonetheless, to thoroughly consider the potential wildfire risks associated with the proposed

[9] California Air Resources Board (ARB). 2021. Quality Assurance Air Monitoring Site Information. Website https://ww3.arb.ca.gov/qaweb/site.php?s_arb_code=39271. Accessed: February 5, 2021.

development of the project site, and in the interest of public safety and full disclosure, the City has considered each of the risk categories set forth in Section XX.

Construction

Impacts related to installation or maintenance of infrastructure (such as roads, fuel breaks, emergency water sources, electrical power lines, or natural gas lines) that may exacerbate fire risk are limited to operational impacts. No respective construction impacts related to infrastructure that exacerbates fire risk would occur.

Operation

The proposed project would be served by eight points of vehicular access (the northerly access point along Paradise Road would be for EVA only):

- Grant Line Road: four access points to the project site.
- Paradise Road: four access points to the project site (the northerly access point along Paradise Road would be for EVA only).

Additionally, the project site is located in a primarily urbanized area surrounded by existing roadways. The proposed project would not require the installation of firebreaks, because it is in a generally urbanized area surrounded by existing development with little natural vegetation. The proposed project would not require emergency water sources, because potable water is currently provided by the City of Tracy, which has adequate water supplies available to serve the proposed project and future development during normal, dry, and multiple dry years as described in Section 3.16, Utilities and Service Systems, Impact UTIL-1. Certain existing overhead lines on the project site (as described more fully in application materials) as well as new electrical power and natural gas lines on and connecting to the project site would be installed below ground, minimizing potential ignition and related fire risk above ground, at the project site according to applicable provisions of the CBC and Tracy Municipal Code Chapter 11.08.

In conclusion, because the project site is not located in "Fire Hazard Severity Zone," nor is it located in an SRA or a "Very High Fire Hazard" in a local, State, or federal responsibility area, it does not meet the threshold for a potentially significant impact set forth in Section XX of Appendix G of the CEQA Guidelines. There would be no impact.

Level of Significance

No Impact

Flooding and Landslide Hazards Due To Post-fire Slope Instability/Drainage Changes

Impact WILD-4: The proposed project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

Because the project site is not located in "Fire Hazard Severity Zone," nor is it located in an SRA or a "Very High Fire Hazard" in a local, State, or federal responsibility area, it does not meet the threshold for a potentially significant impact set forth in Section XX of Appendix G of the CEQA Guidelines. Nonetheless, to thoroughly consider the potential wildfire risks associated with the proposed

development of the project site, and in the interest of public safety and full disclosure, the City has considered each of the risk categories set forth in Section XX.

Construction

Impacts related to post-fire slope instability are limited to operational impacts. No respective construction impacts related to flooding and landslide hazards due to post-fire slope instability or drainage changes would occur.

Operation

The project site is not located on or near steep slopes susceptible to landslides or downstream flooding. As discussed previously, the project site has also not been affected by previous wildfires that could have resulted in drainage changes or loss of vegetation. Additionally, the project site is not located in or near fire prone areas, such as unmanaged open space, or a designated fire hazard zone. As a result, the proposed project would not expose people or structures to significant risks due to post-fire slope instability or drainage changes.

In conclusion, because the project site is not located in "Fire Hazard Severity Zone," nor is it located in an SRA or a "Very High Fire Hazard" in a local, State, or federal responsibility area, it does not meet the threshold for a potentially significant impact set forth in Section XX of Appendix G of the CEQA Guidelines. There would be no impact.

Level of Significance

No Impact

3.17.5 - Cumulative Impacts

The geographic scope of the cumulative wildfire analysis is the City of Tracy and southwestern portion of San Joaquin County. Because of the topography and existing development (including natural and man-made fire breaks), a fire event beyond this geographic scope is unlikely to affect the proposed project and any fires starting in the project site and vicinity would not likely significantly affect lands beyond this geographic scope. The cumulative setting includes the built development and the wildland areas in the southwestern portion of the County. The cumulative projects relevant to this analysis include those listed in Chapter 3, Project Description, Table 3-1. There are no "Fire Hazard Severity Zones" in an SRA or a "Very High Fire Hazard" zone in a local, State, or federal responsibility area located within the City, and none of the cumulative projects are located within these areas.[10,11]

A combination of federal, State, and local laws and regulations limit or minimize the potential for exposure to wildfires by reducing the amount of development in WUI areas, ensuring new development is developed according to the CBC, and incorporating requirements for fire-safe construction into land use planning. Development listed in Table 3-1 (See Chapter 3.0: Environmental

[10] California Department of Forestry and Fire Protection (CAL FIRE). 2007. San Joaquin County: Draft Fire Hazard Severity Zones in LRA. Website: https://osfm.fire.ca.gov/divisions/wildfire-planning-engineering/wildland-hazards-building-codes/fire-hazard-severity-zones-maps/. Accessed April 9, 2020.

[11] CA.gov. 2021. State Responsibility Area. Website: https://gis.data.ca.gov/datasets/5bc422648cf045f38d10e1630fb71a71_0?geometry=-122.077%2C37.605%2C-121.034%2C37.795. Accessed February 11, 2021.

Setting) consists predominantly of residential, commercial, and industrial developments, while roadway developments would be implemented by the City, County, and Caltrans separately.

There would be cumulative project construction (including the installation and/or maintenance of associated infrastructure such as roads, fuel breaks, emergency water sources, power lines or other utilities). As discussed in Section 3.9, Hazards and Hazardous Materials, the main arterial streets that would act as evacuation routes out of the City would be I-205 (east–west), I-205 (north–south), and the I-580 (east–west). As discussed in Section 3.13, Public Services, planned uses proposed by the cumulative projects would not significantly increase the need for emergency services and all development would be required to comply with emergency access requirements, which would be imposed as enforceable standard conditions of approval. Cumulative development would not result in permanent road closures, nor impede established emergency access routes or interfere with emergency response requirements. Accordingly, cumulative projects would not exacerbate wildfire risk. Thus, for these reasons and given that none of the cumulative projects are within high wildfire risk areas (as noted above), there would not be a significant cumulative impact related to wildfire hazards or emergency/evacuation response during construction or operation.

The proposed project would have no impact related to wildfire, it is therefore not expected to contribute to wildfire hazards or emergency/evacuation response.

Level of Significance

No Impact

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CHAPTER 4: EFFECTS FOUND NOT TO BE SIGNIFICANT

4.1 - Introduction

This chapter is based, in part, on the Tracy Alliance Project Draft Environmental Impact Report (Draft EIR) Notice of Preparation (NOP), dated August 28, 2020, and contained in Appendix A of this Draft EIR. The NOP was prepared to identify the potentially significant effects of the proposed project and was circulated for public review between August 28, 2020, and September 30, 2020. During the NOP scoping period, certain impacts were anticipated to be less than significant given the nature of the various project components and the project site. In preparing this Draft EIR, certain impacts have been determined to be less than significant in accordance with applicable provisions of the California Environmental Quality Act (CEQA) as detailed more fully herein and based on substantial evidence in the record.

This chapter provides a brief description of effects found not to be significant or less than significant, based on the NOP, NOP public comments received, as well as more detailed analysis conducted as part of the EIR preparation process. No NOP public comments were received during the NOP scoping period related to the following topics: Mineral Resources, Population and Housing, or Recreation. Further information and analysis is set forth below as to the basis for concluding that the foregoing environmental topic areas would not result in any significant impacts. In addition to these topic areas, there are certain impacts in other environmental topic areas that were found to be less than significant, which are addressed in various EIR topical sections (Sections 3.1 through 3.17), providing further discussion to support the conclusion of less than significant.

4.2 - Environmental Effects Found not to be Significant

4.2.1 - Mineral Resources

Loss of Mineral Resources of Statewide or Local Importance

There are no mineral resource recovery sites on or in the vicinity of the project site.[1] Therefore, implementation of the proposed project would not result in the loss of a locally important mineral resource recovery site delineated by an applicable land use plan. A Mineral Resource Zones and Resources Sectors map prepared by the California Geological Survey indicates that the project site is located outside of known mineral deposits of significance. Furthermore, given available information, the project site does not contain any known mineral resources. In addition, the project site is currently zoned for agricultural purposes, which does not include any mineral resource-related operations. As such, no known mineral resources would be impacted by the proposed project, and thus impacts in this regard would not be significant.

[1] California Department of Conservation. 2012. CGS Information Warehouse: Mineral Land Classification. Plate-2. Website: https://maps.conservation.ca.gov/cgs/informationwarehouse/mlc/. Accessed April 20, 2020.

4.2.2 - Population and Housing

Growth Inducement

The proposed project's potential growth inducing impacts are discussed in Section 5, Other CEQA Considerations. As detailed more fully therein, growth inducing impacts consider whether a project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. For example, direct population growth would result if the proposed project were to include residential units. Because the proposed project is industrial in nature and would not develop single-family or multi-family residential uses, no direct population growth would be expected to occur because of the proposed project. In terms of the removal of any direct barriers to growth, this would not occur as a result of the proposed project because it would not remove any existing obstacles that currently prevent growth within the City. For example, the proposed project would not require expansion of existing water, wastewater and public facilities and services beyond what was already planned for in the General Plan and Northeast Industrial (NEI) Specific Plan. Furthermore, the utility infrastructure installed as part of the proposed project would be sized and located expressly to serve the proposed project and would not, therefore, induce growth in the project vicinity.

Indirect population growth occurs when a project creates substantial employment opportunities or provides new, upsized infrastructure that could lead to additional unplanned growth. Given the nature of the proposed project, it would likely be staffed primarily by local employees once operational, and the proposed project would help to support the City's jobs-to-housing ratio goal of 1.5, as established by the California Department of Housing and Community Development (HCD), by locating employment-generating uses in relatively close proximity thereby limiting extensive commute times. The City's current jobs-to-housing ratio is 1.3.[2,3,4]

Based on the light industrial nature of the proposed project, it is expected that approximately 1,871 employees would work on-site at full buildout.[5] The industrial uses on the project site were anticipated by the City in the General Plan, and thus, the City anticipated this number of employees needed for such a project. Therefore, the proposed project would not result in a significant, unplanned change to the population of the City, and impacts would be less than significant.

Displacement of Persons or Housing

The proposed project would require removal of one occupied residential structure. The project site would be redeveloped with multiple light industrial, warehouse and distribution uses totaling approximately 3,352,320 square feet at full buildout. Although the proposed project would demolish the existing residence and displace the existing occupant(s), given the nominal amount of displacement and the availability of existing and planned replacement housing to fill this nominal need, the proposed project would not necessitate construction of replacement housing elsewhere not already anticipated

[2] California Department of Finance. 2021. City/County Population and Housing Estimates, January 1, 2021.
[3] United States Census. "OnTheMap" Tool. Website: https://onthemap.ces.census.gov/. Accessed August 9,2021.
[4] There were 34,710 jobs and 26,964 dwelling units within the City limits in 2018. This represents a jobs-housing ratio of approximately 1.3, which indicated that there are more jobs than homes in the City.
[5] Conversation with Barbara Harb, Economic Development Analyst, City of Tracy-employment data collected by conversations with business owners for various industrial businesses, including warehousing, manufacturing, and employee-intensive warehousing, and existing building square footage data, averaged.

by the City. As such, impacts associated with the displacement of significant numbers of people or housing would be less than significant.

4.2.3 - Parks and Recreation

Physical Deterioration of Park and Recreational Facilities

The City maintains 15 shaded picnic areas and over 70 public parks available for City resident, visitor, and employee use.[6] The nearest public park to the project site is Glover Park, located approximately 1.4 miles to the west. As discussed above, the proposed project is anticipated to generate a total of approximately 1,871 employees at full buildout and it is reasonable to assume that some of these employees would utilize, at least to some degree, the City's available park and recreational facilities during the workday. However, given the nonresidential, industrial nature and location of the proposed project, it is likely that any such use would be limited and would not result in substantial physical deterioration of park and residential facilities occurring or being accelerated. Moreover, because the proposed project would not be expected to result in a significant increase to the population of the City (given the anticipated local nature of the workforce), the quantity of existing visitors and total facility usage would not likely increase significantly as a result of the proposed project. As such, the proposed project would not result in substantial physical deterioration of existing park and recreational facilities, and therefore impacts in this regard would be less than significant.

New or Expanded Recreational Facilities

According to the City's General Plan, the City aims to provide parks at a minimum of 4 acres per 1,000 residents.[7] According to the City of Tracy Master Plan, as of April 2013, the City has provided parks at a rate of 4.1 acres for every 1,000 residents, and continues to implement a successful strategy preserving and providing parks.[8]

Because the proposed project is not located within or adjacent to any designated natural or open space areas and would not likely increase the City's residential population, coupled with the limited likely employee usage of such facilities, the proposed project would not trigger the need to construct new or expanded park and recreational facilities to ensure that the applicable ratio of parks to residents would be maintained. As such, the proposed project's impacts in this regard would be less than significant.

[6] City of Tracy. 2020. Park Maps. Website: https://www.ci.tracy.ca.us/?navId=189. Accessed April 20, 2020.
[7] City of Tracy. 2011. General Plan. Website: https://www.ci.tracy.ca.us/?navid=562. Accessed April 20, 2020.
[8] City of Tracy. 2013. Parks Master Plan (New Developments). April. Website: https://www.ci.tracy.ca.us/documents/Final_Draft_Parks_Master_Plan.pdf, Accessed April 20, 2020.

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CHAPTER 5: OTHER CEQA CONSIDERATIONS

5.1 - Significant Unavoidable Impacts

California Environmental Quality Act (CEQA) Guidelines Section 15126.2(a)(c) requires an Environmental Impact Report (EIR) to identify and focus on significant environmental effects of the project, including effects that cannot be avoided if the project were implemented.

Based on analysis contained in this Draft EIR, the City has determined that the proposed project would result in the following significant and unavoidable impacts:

- **Project-Level Conversion of Prime Farmland:** Although the proposed project is consistent with the site's General Plan designation and conversion of the project site to industrial use was envisioned as part of buildout under the General Plan, development consistent with the proposed project would result in the loss of agricultural land and would result in conversion of Prime Farmland to urban uses. The project applicant would be required to pay applicable Agricultural Mitigation Fees in connection with individual development proposals as implemented by Mitigation Measure (MM) AG-1. No other feasible mitigation is available to further reduce this impact. According, even with the payment of fees and adherence to the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP), the proposed project would result in significant and unavoidable impacts related to the conversion of Farmland as identified by Farmland Mapping and Monitoring Program (FMMP) mapping to non-agricultural use.
- **Cumulative Conversion of Prime Farmland:** Much of the Northeast Industrial (NEI) Specific Plan area consists of Prime Farmland that would be converted to non-agricultural uses with implementation of the relevant cumulative projects. Like the proposed project, any of the cumulative projects that would convert Prime Farmland to non-agricultural uses would pay the Agricultural Mitigation Fee. The development of the proposed project would result in the loss of approximately 188 acres of Prime Farmland, which would result in a project-level significant and unavoidable impact, would also result in a cumulative considerable contribution to the cumulative impact that would be significant and unavoidable.
- **Project-Level Impact Related to Implementation of the Applicable Air Quality Plan:** The proposed project is consistent with the site's General Plan designation which means the proposed industrial use was accounted for in the Air Quality Plan (AQP) land use projections. However, the proposed project could create a localized violation of State or federal air quality standards, significantly contribute to cumulative non-attainment pollutant violations, and expose sensitive receptors to substantial pollutant concentrations. The proposed project would be required to implement MM AIR-1 through MM AIR-4; however, because full implementation of this mitigation cannot be guaranteed due to potential technical and/or financial infeasibility, the proposed project's potentially significant impact is conservatively identified as significant and unavoidable. Therefore, the proposed project is inconsistent with Criterion 1 of the AQP even after the incorporation of mitigation. The impact would be significant and unavoidable.

- **Project-Level Impact Related to Cumulatively Considerable Net Increase of Reactive Organic Gases and Carbon Monoxide During Construction, and Reactive Organic Gases and Oxides of Nitrogen During Operation:** The construction schedule for the proposed project assumed that none of the three project phases may overlap. In this scenario, after the incorporation of MMs AIR-1a and AIR-1b, construction of the proposed project would not exceed the San Joaquin Valley Air Pollution Control District (Valley Air District) daily emission screening levels for an Ambient Air Quality Analysis (AAQA), pursuant to District Rule 2201. However, the potential remains for project phases to be constructed concurrently. If the three phases of construction occur concurrently, emissions of reactive organic gases (ROG) and carbon monoxide (CO) would exceed the Valley Air District's significance thresholds if all three project phases were constructed concurrently. As such, this impact would remain significant and unavoidable after implementation of identified mitigation.

  During operation, unmitigated emissions would exceed Valley Air District thresholds of significance for ROGs and nitrogen oxides (NO_X). Therefore, MM AIR-1c and MM AIR-1d would be required to mitigate operational emissions to below Valley Air District thresholds. However, the full implementation of MM AIR-1c and MM AIR-1d cannot be guaranteed during project operation; therefore, the reasonable worst-case operational emissions would exceed the Valley Air District's significance thresholds for ROG and NO_X and this impact would remain significant and unavoidable.

- **Project-Level Impact Related to Exposing Sensitive Receptors to Substantial Pollutant Concentrations:** During construction, if all three project phases were constructed concurrently, the proposed project would expose sensitive receptors to CO and diesel particulate matter (DPM) emissions that exceed applicable thresholds even with mitigation incorporated. During operation, the proposed project would expose sensitive receptors to ROGs, NO_X, and DPM levels that exceed applicable thresholds even after incorporation of identified mitigation, resulting in a significant and unavoidable impact.

- **Cumulative Air Quality Impact:** The proposed project would exceed the identified construction or operational significance thresholds; therefore, its emissions would also be cumulatively considerable.

- **Project-Level Vehicle Miles Traveled Impact:** The proposed project's Vehicle Miles Traveled (VMT) would result in a significant impact given that the location-based, service-estimated average one-way trip length for automobile trips generated by the proposed project is more than 20 miles, and the proposed project would be in excess of 15 percent below the nine-county Metropolitan Transportation Commission (MTC) average. The proposed project would be required to implement MM TRANS-1, which would require the applicant to prepare a project-specific Transportation Demand Management (TDM) Program in consultation with the City of Tracy to reduce project-generated VMT. However, even with incorporation of MM TRANS-1, which would partially reduce VMT impacts, the impact would remain significant and unavoidable.

- **Cumulative VMT Impact:** Cumulative projects would be required to comply with applicable State and local laws and regulations that seek to reduce VMT. If found to result in significant VMT impacts, each cumulative project would be required to implement site-specific TDM

measures that would reduce VMT and encourage alternative modes of transportation, such as transit, bicycle use, and walking. Cumulative projects would also be required to include facilities based on future transportation studies prepared for that project and pay into the City's VMT banking program once established. However, even with implementation of all available feasible mitigation, the cumulative VMT would still exceed City standards and would be significant and unavoidable. In addition, as described in Impact TRANS-1, the proposed project's impacts would be significant and unavoidable even with the implementation of mitigation. As such, the proposed project would have a cumulative considerable contribution to a cumulative impact and in conjunction with other projects, would have a significant and unavoidable impact with respect to VMT. The proposed project's contribution would be cumulatively considerable.

5.2 - Growth-inducing Impacts

There are two types of growth-inducing impacts that a project may have: direct and indirect. To assess the potential for the proposed project to result in growth-inducing impacts, this Draft EIR must evaluate project characteristics that may encourage and/or facilitate activities that individually or cumulatively may affect the environment (CEQA Guidelines § 15126.2(e)).

This analysis evaluates whether a project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Direct growth-inducing impacts occur when project development imposes new burdens on a community by directly inducing population growth or by leading to construction of additional developments in the same area. Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. Also included in this category are projects that remove physical obstacles to population growth (such as a new road into an undeveloped area or a wastewater treatment plant with excess capacity that could allow additional development in the service area). Construction of these types of infrastructure projects cannot be considered isolated from the development they facilitate and serve, and could significantly affect the environment, either individually or cumulatively.

The proposed project would include the construction of light industrial, warehouse and distribution uses and related improvements and ancillary uses (e.g., office) that would be expected to employ a total of approximately 1,871 people at full buildout.[1] As described in Chapter 4, Effects Found not to be Significant, direct population growth would result if the proposed project were to include residential units. Because the proposed project is industrial in nature and would not develop single-family or multi-family residential uses, no direct population growth would be expected to occur. In terms of the removal of any direct barriers to growth, this would not occur as a result of the project because the proposed project would not remove any existing obstacles that currently prevent growth within the City. For example, the proposed project would not require expansion of existing water, wastewater and public facilities and services beyond what was already planned for in the

[1] Conversation between Victoria Lombardo, Senior Planner, and Barbara Harb, Economic Development Analyst, City of Tracy in May 2020. Employment data collected by conversations with business owners for various industrial businesses, including warehousing, manufacturing, and distribution, and existing building square footage data, averaged.

General Plan, NEI Specific Plan, and relevant City master infrastructure plans. The utility infrastructure installed as part of the proposed project would be sized and located expressly to serve the proposed project and would not, therefore, induce growth in the project vicinity.

Therefore, because the proposed project does not involve housing, nor would it remove any direct barriers to growth, the proposed project would not directly increase population.

Indirect population growth occurs when a project creates substantial employment opportunities or provides new, upsized infrastructure that could lead to additional unplanned growth. Once operational, the proposed project is expected to employ up to approximately 1,871 people on-site for daily operation. Given the nature of the proposed uses, it is anticipated that the employees would come primarily from the local job market and therefore would not likely trigger significant additional housing development to serve these employees, and the proposed project would help to support the City's jobs-to-housing ratio goal of 1.5 as established by the California Department of Housing and Community Development (HCD). The current ratio is 1.3.[2,3,4] Furthermore, the project site is within the City's existing Sphere of Influence (SOI), and has been designated by the General Plan for industrial uses and therefore, the City has anticipated this growth in employment opportunities that would result from the proposed project.

Infrastructure and services would be expanded to serve the proposed project, but would not require expansion of existing water, wastewater and other facilities and services beyond what was already planned for in the General Plan and relevant City master infrastructure plans, and thus would not encourage additional unplanned growth. For these reasons, implementation of the proposed project would not induce substantial indirect population growth within the City.

The proposed project would not result in direct or indirect growth, negatively alter the existing jobs/housing balance, or be inconsistent with the General Plan, the NEI Specific Plan, or relevant City master infrastructure plans; therefore, growth-inducing impacts would be less than significant.

5.3 - Significant Irreversible Environmental Changes

As mandated by CEQA Guidelines Section 15126.2(d), the Draft EIR must address significant irreversible environmental changes that would result from implementation of the proposed project. Primary impacts and particularly, secondary impacts (such as a highway improvement that provides access to a previously inaccessible area) generally commit future generations to similar uses. Specifically, such an irreversible environmental change would occur if:

- The proposed project would involve a large commitment of nonrenewable resources, which makes removal or nonuse thereafter unlikely.
- Irreversible damage can result from environmental accidents associated with the proposed project.

[2] California Department of Finance. 2021. City/County Population and Housing Estimates.
[3] United States Census. "OnTheMap" Tool. Website: https://onthemap.ces.census.gov/. Accessed August 9,2021.
[4] There were 34,710 jobs and 26,964 dwelling units within the City limits in 2018. This represents a jobs-housing ratio of approximately 1.3, which indicated that there are more jobs than homes in the City.

- Any irretrievable commitments of resources are not justified (e.g., the proposed project results in the wasteful use of energy). (Refer to Section 3.6, Energy, which addresses this topic in accordance with CEQA Guidelines Appendix F).

The proposed project involves construction and operation of multiple light industrial, warehouse and distribution uses and related improvements and ancillary uses (e.g., office), which at buildout, would total approximately 3,352,320 square feet. As described more fully in Chapter 2, Project Description, three warehouse and distribution buildings and related improvements are proposed for the Tracy Alliance parcels, totaling approximately 1,849,500 square feet. With respect to the Suvik Farms and Zuriakat parcels, there are no current development proposals; therefore, for purposes of a conservative analysis, it is assumed that at buildout, these parcels would be developed with approximately 1,502,820 square feet. Other project components would include the construction of an approximately 12.44-acre stormwater detention basin with a pump station, as already envisioned in the current City of Tracy Citywide Storm Drainage Master Plan.[5] Existing trees and ornamentals associated with existing residential uses and all crops would be removed as part of the proposed project. The proposed project would be developed within the NEI Specific Plan area, which would help ensure the efficient, cohesive construction and operation of the proposed project near other similar, compatible uses.

Construction would include the use of building materials, such as petroleum-based products and metals, which cannot reasonably be recreated. Construction also would involve significant consumption of energy, consisting predominantly of petroleum-based fuels that deplete supplies of nonrenewable resources. Construction of structures, other improvements and infrastructure would also consume energy and water.

However, construction debris recycling practices would be expected to result in the recovery and reuse of building materials such as concrete, lumber, and steel; these practices would also limit disposal of these materials, some of which are non-renewable. Additionally, construction equipment would have to meet applicable Valley Air District standards as described in Section 3.3, Air Quality. Section 3.6, Energy, addresses energy consumption during construction and explains in more detail why impacts would be less than significant in this regard.

Once construction is complete, land uses associated with the proposed project would use some nonrenewable fuels to heat and light structures. New industrial uses would be required to adhere to the latest adopted edition of the California Green Building Standards Code (CALGreen), which includes a number of standards and features (viewed as some of the most stringent requirements in the country) that would reduce energy demand, water consumption, and wastewater and solid waste generation that would collectively conserve and reduce the demand for resources. This would result in reduced emissions and the generation of less pollution and effluent and lessen the severity of corresponding environmental effects. Although the proposed project would result in an irretrievable commitment of non-renewable resources and water for irrigation and plumbing, these would not be consumed inefficiently, unnecessarily, or wastefully.

[5] Stantec. 2012. City of Tracy Citywide Storm Drainage Master Plan. Figure 5-1a. November.

Furthermore, the proposed industrial uses do not have the potential to cause significant environmental accidents through releases into the environment, as they would not involve large quantities of hazardous materials (see Section 3.9, Hazards and Hazardous Materials). Future tenants/operators would be required to submit a Hazardous Materials Business Plan (HMBP) to San Joaquin Environmental Health for review and approval if the tenants/operators intend to store significant amounts of hazardous materials on-site. According to the California Department of Forestry and Fire Protection (CAL FIRE), there are no Very High Fire Hazard Severity Zones in San Joaquin County, and therefore none in the project site.[6] Because the project site has not previously experienced wildfire and is not located in or near an area of steep terrain or historical wildfire burn, nor does it experience consistent high winds, the project site would not be prone to wildfire risk (see Section 3.17, Wildfire). In addition, as discussed in Section 3.13, Public Services, existing fire protection facilities would be adequate to serve the project site, and the proposed project would not result in a significant impact related to need for new or altered fire protection facilities. Thus, implementation of the proposed project's industrial uses would not have the potential to result in significant environmental accidents related to wildfire hazards and would not result in significant irreversible environmental changes.

[6] California Department of Forestry and Fire Protection (CAL FIRE). Fire Hazard Severity Zone Viewer. Website: https://egis.fire.ca.gov/FHSZ/. Accessed April 9, 2020.

CHAPTER 6: ALTERNATIVES TO THE PROPOSED PROJECT

6.1 - Introduction

In accordance with California Environmental Quality Act (CEQA) Guidelines Section 15126.6, this chapter contains a comparative impact assessment of a reasonable range of alternatives to the Tracy Alliance Project (proposed project). The primary purpose of an alternatives analysis under CEQA is to provide decision-makers, interested organizations and the public with a reasonable number of potentially feasible project alternatives that could attain most of the basic project objectives, while avoiding or reducing any of the project's significant adverse environmental effects. Important considerations for these alternatives analyses are noted below (as stated in CEQA Guidelines Section 15126.6). Analysis of three alternatives to the proposed project is provided for purposes of full disclosure and to allow decision-makers to consider the proposed project in light of hypothetical alternative development scenarios, thereby promoting CEQA's purpose as an information disclosure statute. This analysis is guided by the following considerations set forth under CEQA Guidelines Section 15126.6:

- An Environmental Impact Report (EIR) need not consider every conceivable alternative to a project.
- An EIR should identify alternatives that were considered by the lead agency, but rejected as infeasible during the scoping process.
- Reasons for rejecting an alternative include:
  - Failure to meet most of the basic project objectives;
  - Infeasibility; or
  - Inability to avoid significant environmental effects.

6.2 - Significant Unavoidable Impacts

The proposed project was analyzed for potentially significant impacts related to each of the environmental issues discussed in Sections 3.1 through 3.18. The results of the analysis indicate that even with the implementation of feasible mitigation, the proposed project would result in the following significant and unavoidable impacts:

- **Project-Level Conversion of Prime Farmland:** Although the proposed project is consistent with the site's General Plan designation and conversion of the project site to industrial use was envisioned as part of buildout under the General Plan, development consistent with the proposed project would result in the loss of agricultural land and conversion of Prime Farmland to urban uses. The project applicants would each be required to pay applicable Agricultural Mitigation Fees in connection with their respective individual development proposals as implemented by Mitigation Measure (MM) AG-1. No other feasible mitigation is available to further reduce this impact. Accordingly, even with the payment of fees and adherence to the San Joaquin County Multi-Species Habitat Conservation and Open Space

Plan (SJMSCP), the proposed project would result in significant and unavoidable impacts related to the conversion of Farmland identified by Farmland Mapping and Monitoring Program (FMMP) mapping to nonagricultural use.

- **Cumulative Conversion of Prime Farmland:** Much of the Northeast Industrial (NEI) Specific Plan area consists of Prime Farmland that would be converted to nonagricultural uses with implementation of the relevant cumulative projects. Like the proposed project, any of the cumulative projects that would convert Prime Farmland to nonagricultural uses would be required to pay the Agricultural Mitigation Fee; however, the cumulative impact remains significant. The development of the proposed project would result in the loss of approximately 188 acres of Prime Farmland, which would result in a project-level significant and unavoidable impact that would also result in a cumulatively considerable contribution to the cumulative impact that would be significant and unavoidable.
- **Project-Level Impact Related to Implementation of the Applicable Air Quality Plan:** The proposed project is consistent with the site's General Plan designation which means the proposed industrial use was accounted for in the Air Quality Plan (AQP) land use projections. However, the proposed project could create a localized violation of State or federal air quality standards, significantly contribute to cumulative non-attainment pollutant violations, and expose sensitive receptors to substantial pollutant concentrations. The proposed project would be required to implement MM AIR-1 through MM AIR-4; however, because full implementation of the mitigation cannot be guaranteed due to potential technical and/or financial feasibility, the proposed project's potentially significant impact is conservatively identified as significant and unavoidable. Therefore, the proposed project is inconsistent with Criterion 1 of the AQP even after the incorporation of mitigation. The impact would be significant and unavoidable.
- **Project-Level Impact Related to Cumulatively Considerable Net Increase of reactive organic gases (ROG) and carbon monoxide (CO) During Construction, and ROG and oxides of nitrogen (NO_X) During Operation:** The construction schedule assumed for the proposed project assumed that none of the three project phases may overlap. In this scenario, after the incorporation of MMs AIR-1a and AIR-1b, construction of the proposed project would not exceed the San Joaquin Valley Air Pollution Control District (Valley Air District) daily emission screening levels for an Ambient Air Quality Analysis (AAQA), pursuant to District Rule 2201. However, the potential remains for project phases to be constructed concurrently. Therefore, for purposes of a conservative analysis, this Draft EIR considers both scenarios (i.e., sequential and concurrent phasing). If the three phases of construction occur concurrently, emissions of ROG and CO would exceed the Valley Air District's significance thresholds after implementation of identified mitigation. As such, this impact would remain significant and unavoidable after implementation of identified mitigation.

  During operation, unmitigated emissions would exceed Valley Air District thresholds of significance for ROGs and NO_X. Therefore, MMs AIR-1c and AIR-1d would be required to mitigate operational emissions to below Valley Air District thresholds. However, the full implementation of MM AIR-1c and MM AIR-1d cannot be guaranteed during project operation; therefore, the worst-case operational emissions would exceed the Valley Air

District's significance thresholds for ROG and NO_X and this impact would remain significant and unavoidable.

- **Project-Level Impact Related to Exposing Sensitive Receptors to Substantial Pollutant Concentrations:** During construction, the proposed project would expose sensitive receptors to CO and diesel particulate matter (DPM) emissions that exceed applicable thresholds even with mitigation incorporated if all three project phases were constructed concurrently. During operation, the proposed project would expose sensitive receptors to ROGs, NO_X, DPM levels that exceed applicable thresholds even after incorporation of identified mitigation resulting in a significant and unavoidable impact.
- **Cumulative Air Quality Impact:** The proposed project would exceed the identified construction or operational significance thresholds, its emissions would also be cumulatively considerable.
- **Project-Level Vehicle Miles Traveled (VMT) Impact:** The proposed project's VMT would result in a significant impact given that the location-based service-estimated average one-way trip length for automobile trips generated by the proposed project is more than 20 miles, and the proposed project would be in excess of 15 percent below the nine-county Metropolitan Transportation Commission (MTC) average. The proposed project would implement MM TRANS-1(a) and MM TRANS-1(b), which would require the applicant for each individual development proposal to prepare a project-specific Transportation Demand Management (TDM) Program with specified measures to reduce project-generated VMT. In addition, the applicant for each individual development proposal would need to pay the applicable VMT banking mitigation fee. However, even with incorporation of MM TRANS-1(a) and MM TRANS-1(b), which would partially reduce VMT impacts, the impact would remain significant and unavoidable.
- **Cumulative VMT Impact:** Cumulative projects would be required to comply with State and local laws and regulations. If found to result in signficant VMT impacts, the cumulative projects would be required to implement TDM measures that would reduce VMT and encourage alternative modes of transportation, such as transit, bicycle use, and walking. The specific types of transit, bicycle, and pedestrian facilities would depend on the proposed project and its location. Cumulative projects would also be required to include facilities based on future transportation studies prepared for that project and pay into the City's VMT banking program once established. However, even with implementation of all available feasible mitigaiton, the cumulative VMT would still exceed City standards and would be significant and unavoidable. In addition, as described in Impact TRANS-1, the proposed project's impacts would be signficant and unavoidable even with the implmentation of mitigation. As such, the proposed project, would have a cumulatively considerable contribution to a cumulative impact and in conjunction with other projects, would have a signficant and unavoidable impact with respect to VMT.

Potential significant impacts were identified with respect to Biological Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Noise, Tribal

Cultural Resources, and Utilities and Service Systems; however, mitigation measures were identified that would reduce the impacts to less than significant.

6.3 - Alternative Eliminated from Further Consideration

An EIR must briefly describe the rationale for selection and rejection of alternatives. The lead agency may make an initial determination as to which alternatives are potentially feasible and, therefore, merit in-depth consideration, and which are clearly infeasible. "The discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives or would be more costly" (CEQA Guidelines, § 15126.6(b)). Alternatives that are remote or speculative, or the effects of which cannot be reasonably predicted, need not be considered (CEQA Guidelines, § 15126.6(f)(3)).

This chapter identifies one alternative initially considered by the lead agency, but rejected as infeasible, and provides a brief explanation of the reasons for its exclusion. As noted above, this alternative was eliminated from detailed consideration in the Draft EIR since it fails to meet most of the project objectives, and is infeasible.

A maximum decreased intensity reduction was initially considered in an effort to reduce air quality impacts to less than significant levels. To result in less than significant air quality impacts, an extreme reduction in NO_X emissions during operation would be required, from a maximum 35.83 annual tons to a level below applicable threshold of maximum 10 annual tons, which would require a building square footage reduction of 72.9 percent. Given the substantial decrease in intensity, such an alternative would not be financially feasible, would not accomplish any of the project objectives, and is therefore rejected from further consideration.

Alternative locations were initially considered in order to locate a site that would not involve the conversion of 188 acres of Prime Farmland, however for reasons explained below was ultimately rejected. CEQA Guidelines Section 15126.6(f)(2) sets forth considerations to be used in evaluating an alternative location. The section states that the "key question" is whether any of the significant effects of the proposed project would be avoided or substantially lessened by relocating the proposed project.

The CEQA Guidelines identify the following factors that may be taken into account when addressing the feasibility of an alternative location:

1) Site suitability
2) Economic viability
3) Availability of infrastructure
4) General Plan consistency
5) Other plans or regulatory limitations
6) Jurisdictional boundaries
7) Whether the project applicant can reasonably acquire, control, or otherwise have access to the alternative site.

This alternative involves review of the potential to construct a development of similar size and scale as the proposed project at alternative locations, thereby lessening or avoiding site-specific impacts to Prime Farmland. Under this alternative, the proposed project would be located at another large, predominantly vacant property that could meet the proposed project's objective to provide a 167-acre industrial development. The primary constraint is that the applicant does not own, control, or otherwise have access to any other sites. Nonetheless, potential off-site alternative locations were screened for consideration based on size and zoning requirements. The City of Tracy is mostly urbanized so it is assumed that there would be availability of infrastructure should the proposed project occur elsewhere within the City. Potential sites within the City of appropriate size generally consisted of other agricultural parcels that are mostly designated as Prime Farmland located along the City's Sphere of Influence (SOI), which would result in similar impacts to agricultural resources as the proposed project and/or increased impacts to other topical areas and would not achieve the intended purpose of alternative site alterative. For example,, one appropriately-sized parcel is located adjacent to Bohn Elementary School and large tracts of residential development. This site was considered but rejected as an alternative location because it could potentially result in increased impacts to sensitive receptors, increased traffic congestion due to its proximity to residential areas and distance from transit hubs, as well as increased air quality impacts. This area is also designated as Prime Farmland and the proposed project would still have significant impacts related conversion of Prime Farmland. In addition, this area is designated as Urban Reserve in the General Plan for potential future residential development. Constructing the proposed project on this site would be inconsistent with the General Plan and would have potentially more significant population and housing and land use and planning impacts than the proposed project. There are no vacant parcels within the City that are not Prime Farmland, can accommodate the size of the proposed project, and are zoned for industrial uses (to be consistent with the General Plan). For these reasons, although alternative sites were considered an alternative location was therefore eliminated from further discussion in this Draft EIR, consistent with CEQA Guidelines Section 15126.6(c).

6.4 - Alternatives to the Proposed Project

Pursuant to CEQA Guidelines Section 15126.6, this Draft EIR presents a range of reasonable alternatives to the proposed project for analysis and evaluation of their comparative merits. These alternatives are considered to cover the range of development alternatives that would meet most of the basic objectives of the proposed project while lessening one or more of its significant impacts. CEQA Guidelines Section 15126.6(a) states that an EIR need not evaluate every conceivable alternative to a project. Information has been provided for each alternative that would allow meaningful comparison with the proposed project.

CEQA requires that an EIR analyze a "no project" alternative (CEQA Guidelines § 15126.6(e)). Where, as here, this alternative means a project would not proceed, the discussion "[sh]ould compare the environmental effects of the property remaining in its existing state against environmental effects which would occur if the project is approved" (CEQA Guidelines § 15126.6(e)(3)(B)). Another type of alternative to be considered includes consideration of what could reasonably be expected in the foreseeable future if the proposed project is not approved, based on current land use plans/designations/zoning and consistent with available infrastructure and community services.

The three alternatives to the proposed project analyzed in this chapter are as follows:

- **No Project (No Build) Alternative:** Under this alternative, development of the project site would not occur, and the project site would remain in its current existing condition.
- **Outside Storage Allowable Use Alternative.** The Outside Storage Allowable Use Alternative contemplates a reduction in building square footages, an increase in outside storage areas, and the preservation of 25 percent of the existing agricultural operations (approximately 48 acres). This alternative contemplates a combination of "Equipment Storage Yards," which is a Permitted Use under the NEI Specific Plan and/or "Building Materials Sales, Lumberyards (outside storage)," which is a Conditional Use permitted under the NEI Specific Plan. The project site would be developed in such a way to protect some of the on-site Prime Farmland by reducing the overall footprint of the developed areas. The outside storage uses would require less building coverage and the number of employees would be reduced as compared to the proposed project.
- **Agricultural Protection Alternative**: Under this alternative, the proposed project would be developed in such a way as to protect some of the on-site Prime Farmland by reducing the overall footprint of the developed areas and providing a buffer for existing residences along California Avenue. The northern half (approximately 11 acres) of the Zuriakat Parcel would not be converted to nonagricultural uses and could remain in agricultural production.

6.5 - Project Objectives

The purpose of the proposed project is to provide high-quality industrial warehousing to attract businesses to the City of Tracy and to provide local employment opportunities. As stated in Chapter 2, Project Description, the quantifiable objectives of the proposed project are to:

- Development of approximately 167 acres of industrial uses (buildings and parking areas and related improvements)**.**
- Development of approximately 12.44 acres of public facilities (detention basin).
- Reserve approximately 12.51 acres for future planned interchange at Paradise Road and Interstate 205 (I-205).
- Build a maximum of 3,352,320 square feet of employment-generating industrial uses.

Additional qualitative objectives for the proposed project are as follows:

- **Employment Opportunities:** Provide for local and regional employment opportunities that take advantage of the project site's high level of accessibility, allow for the expansion of the City's economic base, help improve the jobs/housing balance, and reduce the commute for regional residents.
- **Transportation**: Provide an efficient circulation system, including reserving land for a future planned interchange at Paradise Road and I-205 (construction of the interchange would not be completed as part of the proposed project).

- **Public Facilities and Services**: Provide infrastructure and services to serve the proposed project that meet applicable City standards and integrate with existing and planned facilities.
- **Phasing**: Establish a logical phasing plan designed to ensure that each phase of development would include necessary public improvements required to meet applicable City standards.

6.6 - Alternative 1—No-Project Alternative

CEQA Guidelines Section 15126.6(e) requires EIRs to evaluate a "No Project Alternative," which is defined as the "circumstance under which the project does not proceed."

Under the No Project Alternative, the 3,353,320 square feet of warehouse development, infrastructure improvements, I-205/Paradise Road/Chrisman Road interchange, and off-site roadway improvements would not be constructed on the project site and in its vicinity. In this scenario, the project site's existing agricultural uses, outbuildings, two existing single-family homes, and garage would remain; road improvements would not occur; reservation of land for the future interchange would not occur; trees and crops would not be removed or impacted; and grading would not take place. This alternative would not require a General Plan Amendment, rezoning, minor subdivision, or Final Development Plan.

6.6.1 - Impact Analysis

Aesthetics

Under the No Project Alternative, the existing row crops, two residences, associated landscaping, and nine agricultural outbuildings would not be converted and could remain on-site. The infrastructure improvements to utilities, the future interchange, and off-site roadway improvements would not occur. There would be no change in visual character, views, nighttime lighting, daytime glare, or shadow, as there would be no change to the existing on-site buildings, parking area, streets, utility lines, topography, or vegetation/landscaping, or conflict with zoning. Thus, there would be no aesthetics impacts under this alternative.

The project impacts related to aesthetics would be less than significant (See Section 3.1, Aesthetics). The No Project Alternative would have less impact compared to the proposed project, although under both this alternative and the proposed project, these impacts would be less than significant.

Agriculture and Forestry Resources

The No Project Alternative would not convert any Prime Farmland as identified by the FMMP to nonagricultural use, nor would it conflict with zoning or a Williamson Act contract.

The project impacts related to Agriculture would be significant and unavoidable (See Section 3.2, Agriculture and Forestry Resources). The proposed project would create no impacts with respect to forestry resources.

The No Project Alternative would avoid the significant and unavoidable impact on agricultural resources that would result from the proposed project.

Air Quality

Under the No Project Alternative, the project site would not be developed with 3,353,320 square feet of warehouse and distribution uses. There would be no ground disturbance within the project site and within the areas proposed for the off-site improvements; therefore, no impacts to air quality would occur under this alternative during construction and the significant and unavoidable impacts in this regard would be avoided. Similarly, the significant and unavoidable air quality impacts related to operations would not occur.

Biological Resources

Under the No Project Alternative, there would be no change related to wildlife or habitat on-site and the No Project Alternative would not have potential impacts to special-status wildlife species or jurisdictional wetlands. Thus, there would be no biological resources impacted under this alternative.

As proposed, the project impacts related to biological resources would be less than significant with mitigation (see Section 3.4, Biological Resources). The No Project Alternative would result in no impact to biological resources; however, this alternative would not meet the project objectives in terms of employment opportunities, transportation improvements, and infrastructure and services.

Cultural Resources

Under the No Project Alternative, there would be no change in historic or archaeological resources, as there would be no change to the existing on-site buildings and no ground disturbance. Thus, there would be no cultural resources impacts under this alternative.

The proposed project's impacts related to cultural resources would be less than significant with mitigation (see Section 3.5, Cultural Resources). The No Project Alternative would have no impact related to cultural resources. However, this alternative would not meet the project objectives in terms of employment opportunities, transportation improvements, and infrastructure and services.

Energy

Under the No Project Alternative, there would be no change related to energy consumption, as there would be no change to the existing land uses or daily vehicle trips. Thus, there would be no impact related to energy use under this alternative.

The proposed project's impacts related to energy use and conservation would be less than significant (see Section 3.6, Energy). The No Project Alternative would not construct the warehouse buildings or infrastructure improvements, and would therefore result in no impact related to energy consumption. However, this alternative would not meet the project objectives in terms of employment opportunities, transportation improvements, and infrastructure and services. It would also not meet the project objective of providing local jobs and reducing the commute for regional residents, which would reduce energy impacts resulting from the use of car fuels.

Geology and Soils

Under the No Project Alternative, there would be no impact related to potential exposure of persons and property to seismic- and soil-related hazards under this alternative, nor would there be potential paleontological impacts. There would be no impact with regard to geology and soils under the No Project Alternative.

The project impacts related to geology and soils would be less than significant with mitigation (see Section 3.7, Geology and Soils). The No Project Alternative would not have geology and soils impacts, as it would not construct warehouses in a seismically active area and on soil that is expansive, unstable, and susceptible to liquefaction and other seismic-related ground failure. It would also have no impact on paleontological resources. Therefore it would have less impacts compared to the proposed project. However, the No Project Alternative would not meet the project objectives in terms of employment opportunities, transportation improvements, and infrastructure and services. Furthermore, there are no project objectives related to geology and soils.

Greenhouse Gas Emissions

Under the No Project Alternative, there would be no change related to greenhouse gas (GHG) emission generation, as there would be no change to the existing land uses or daily vehicle trips. Thus, there would be no impact related to GHG emissions under this alternative.

The project impacts related to GHG emissions would be less than significant (see Section 3.8, Greenhouse Gas Emissions). The No Project Alternative would have no impact related to GHG emissions, as it would not create emissions from construction or operation of the warehouses. Therefore it would have less impacts compared to the proposed project. However, it would not meet any of the project objectives related to GHG emissions, because this alternative would not reduce commutes for regional residents by proving local employment opportunities.

Hazards and Hazardous Material

Under the No Project Alternative, there would be no demolition of the existing on-site buildings, and therefore no impacts related to potential exposure to lead-based paint or asbestos-containing materials (ACM) would occur from demolition activities.

The project impacts related to hazards and hazardous materials would be less than significant with mitigation (see Section 3.9, Hazards and Hazardous Materials). The No Project Alternative would have no impact related to hazards and hazardous materials. Therefore, it would have a lesser level of hazards and hazardous materials impact compared to the project. However, the No Project Alternative would not meet the project objectives in terms of employment opportunities, transportation improvements, and infrastructure and services.

Hydrology and Water Quality

Under the No Project Alternative, there would be no change related to hydrology, stormwater runoff and drainage, water quality, groundwater recharge and depletion, or flooding, as there would be no change to the existing on-site buildings, hardscape, or landscaping resulting in changes in impervious

vs. pervious surfaces on-site. The stormwater detention basin would eventually be constructed by the City as part of their Stormwater Master Plan. Thus, there would be no hydrology and water quality impacts or improvements under this alternative.

The project impacts related to hydrology and water quality would be less than significant with mitigation (see Section 3.10, Hydrology and Water Quality). The No Project Alternative would have no impacts related to hydrology and water quality. However, the No Project Alternative would not meet the project objectives in terms of infrastructure and services such as stormwater drainage improvements.

Land Use and Planning

Under the No Project Alternative, the project site would not be developed with 3,353,320 square feet of warehouse development, and the infrastructure improvements to utilities, the future interchange, and off-site roadway improvements would not occur. There would be no impact under this alternative.

This alternative would not be consistent with the objectives of the General Plan, which focuses on developing employment opportunities and expanding the City's industrial base. While the No Project Alternative would have no land use impacts, it would not be consistent these goals and policies outlined in the General Plan.

The project impacts related to land use and planning would be less than significant, and the project would meet many of the objectives of the General Plan (see Section 3.11, Land Use). In addition, this alternative would not meet the project objectives related to employment opportunities and industrial uses.

Noise

Under the No Project Alternative, there would be no change in groundborne vibration and noise sources (including from traffic-related noise), as there would be no changes to the existing land uses or daily vehicle trips. Noise and vibration levels in the project vicinity would remain the same as under existing conditions. Thus, there would be no noise impacts under this alternative.

The project would result in a less than significant impact with mitigation for temporary increase in ambient noise levels during construction and less than significant impacts for noise land use compatibility, groundborne vibration, and airport noise (see Section 3.12, Noise). Compared to the project, the No Project Alternative would have less projected noise impacts. However, this alternative would not meet any of the project objectives.

Public Services

Under the No Project Alternative, there would be no change related to fire, police, school, or library services, as there would be no change to the existing land uses on the project site. There would be no impact.

The project impacts to public services would be less than significant (see Section 3.13, Public Services). The No Project Alternative would have a lower level of public services impacts compared to the proposed project. However, the No Project Alternative would not meet the project objectives.

Transportation

Under the No Project Alternative, the project site would not be developed with 3,353,320 square feet of warehouse development, and the infrastructure improvements to utilities, the future interchange, and off-site roadway improvements would not occur. Therefore, there would be no impact. However, the positive benefits associated with these improvements would not be realized. Additionally, there would be no enhancements made to roadway safety hazards, emergency access, public transit, pedestrian facilities, and bicycle facilities under this alternative.

The project impacts to transportation and traffic would be significant and unavoidable with respect to an increase in VMT and less than significant with mitigation with respect to roadway safety hazards and emergency access (see Section 3.14, Transportation). The proposed project would implement mitigation, which would require the applicant to prepare a project-specific TDM Program in consultation with the City to reduce project-generated VMT. However, with incorporation of mitigation, impacts would be reduced to the extent feasible, but would remain significant and unavoidable at the project level and under cumulative conditions. The proposed project's impacts related to emergency access, roadway safety hazards, pedestrian facilities, and bicycle facilities would be reduced to less than significant levels with mitigation incorporated. The proposed project's impacts related to public transit would be less than significant without mitigation.

Under the No Project Alternative, no development would occur on the project site or within the areas proposed for off-site improvements, and no new land uses would be introduced. Therefore, no additional VMT would be generated, nor would there be any new demands for public transit, pedestrian facilities, and bicycle facilities under this alternative, and no mitigation would be required. As such, the No Project Alternative would result in reduced impacts related to VMT as compared to the proposed project. However, the No Project Alternative would not result in enhancements to roadway safety hazards, emergency access, public transit, pedestrian facilities, and bicycle facilities, which would occur with the implementation of the project. Furthermore, the No Project Alternative would not meet the project objectives related to reducing the commute for regional residents and providing an efficient circulation system by reserving land for a future interchange at Paradise Road and I-205.

Tribal Cultural Resources

Under the No Project Alternative, there would be no change in tribal cultural resources, as there would be no change to the existing on-site buildings and no ground disturbance. Thus, there would be no tribal cultural resources impacts under this alternative.

The project impacts related to tribal cultural resources would be less than significant with mitigation incorporated (see Section 3.15, Tribal Cultural Resources). The No Project Alternative would have a lower level of tribal cultural resources impact compared to the project, as it would not cause ground-

disturbing activities on the project site. However, this alternative would not meet any of the identified project objectives.

Utilities and Service Systems

Under the No Project Alternative, the infrastructure improvements to utilities, the future interchange, and off-site roadway improvements would not occur. There would be no change related to water supply and wastewater utilities and stormwater and solid waste collection service systems, as there would be no change to the existing on-site residential buildings and agricultural operations and associated utilities demand and infrastructure facilities. Thus, there would be no impact related to utility and service systems under this alternative.

The project impacts to utility and service systems would be less than significant with mitigation (see Section 3.16, Utility and Service Systems). The No Project Alternative would have a lower level of utility and service systems impact compared to the project; however, this alternative would not meet the project objectives.

Wildfire

Under the No Project Alternative, there would be no change to the project site with regard to wildfire susceptibility. Thus, there would be no impact related to wildfire under this alternative.

The proposed project would not have impacts related to wildfire(See Section 3.17, Wildfire). The proposed project is not located in a "Fire Hazard Severity Zone" nor is it located in an State Responsibility Area (SRA) or a "Very High Fire Hazard Severity Zone" in a local, State, or federal responsibility area. The No Project Alternative would not exacerbate existing wildfire conditions have a lower level of wildfire risk, as the existing residential uses and agricultural operations would remain on-site and not add additional facilities and associated employees, potentially exposing additional persons to wildfire risk. However, the No Project Alternative would not add enhancements to reduce roadway safety hazards or improve emergency access, which would reduce impacts associated with wildfires. Additionally, the No Project Alternative would not meet any of the objectives of the project.

Conclusion

The No Project Alternative would avoid the majority of the project's impacts by leaving the site in its existing condition, thus avoiding impacts caused by the demolition of on-site buildings, construction of warehouse buildings, infrastructure and off-site improvements, and impacts caused by the operation of the proposed project. However, the No Project Alternative would not advance any of the overall project objectives.

6.7 - Alternative 2—Outside Storage Allowable Use Alternative

Under the Outside Storage Allowable Use Alternative, there would be a reduction in building square footages, an increase in outside storage areas, and the preservation of 25 percent of the existing agricultural operations (approximately 48 acres). This alternative contemplates a combination of "Equipment Storage Yards," which is a Permitted Use under the NEI Specific Plan and/or "Building

Materials Sales, Lumberyards (outside storage)," which is a Conditional Use permitted under the NEI Specific Plan. The project site would be developed in such a way to protect some of the on-site Prime Farmland by reducing the overall footprint of the developed areas. The outside storage uses would require less building coverage, and the number of employees would be reduced as compared to the proposed project.

6.7.1 - Impact Analysis

Aesthetics

The project's impacts related to aesthetics would be less than significant (see Section 3.1, Aesthetics). The Outside Storage Allowable Use Alternative would consist of a reduction in building square footages and an increase in outside storage areas as compared to the proposed project. As compared to the proposed project, this alternative would result in fewer changes from the existing conditions. Additionally, this alternative would preserve 25 percent of the existing agricultural operations. However, the outside storage of building materials and/or equipment would introduce a new aesthetic impact. Nonetheless, the reduction of building square footage and preservation of some agricultural uses would reduce the project's aesthetic impacts as compared to the proposed project. Therefore, this alternative would result in reduced changes to visual character, views, nighttime lighting, daytime glare, and shadow because the building square footages would be reduced and there would be reduced changes to the existing agricultural operations. Thus, similar to the proposed project, there would be less than significant aesthetics impacts under this alternative. The Outside Storage Allowable Use Alternative would have less impacts compared to the proposed project, impacts would be considered less than significant.

Agriculture and Forestry Resources

The project's impacts related to agriculture would be significant and unavoidable due to the conversion of Farmland pursuant to the FMMP to nonagricultural use (See Section 3.2, Agriculture and Forestry Resources). The Outside Storage Allowable Use Alternative would consist of a reduction in building square footages and would preserve 25 percent (48 acres) of the existing agricultural operations on the project site. As compared to the proposed project, this alternative would result in fewer changes to the existing agricultural uses on the project site. This alternative would protect more of the on-site Prime Farmland and would maintain a buffer between the site existing residences. This alternative would not conflict with zoning or a Williamson Act contract. No forest land would be lost or converted. However, this alternative would still convert Prime Farmland into industrial uses. Thus, there would be significant and unavoidable agricultural impacts under this alternative.

Because it would preserve some Farmland, this alternative would be more consistent with the General Plan's goal to preserve and protect significant agricultural resources as compared to the proposed project. This alternative would only partially meet qualitative objectives related to employment opportunities, reducing the commute for regional residents, providing an improved circulation system, and providing public facilities and services, such as stormwater drainage improvements. Additionally, by reducing the size and purpose of the warehouse buildings, and re-purposing parking areas as storage yards, this alternative would not meet the project's quantitative

objectives for the amount of employment-generating industrial uses and would be less consistent with the General Plan objectives related to employment growth.

Air Quality

The project's impacts related to air quality would be significant and unavoidable for criteria pollutant and toxic air contaminant emissions generation (See Section 3.3, Air Quality). Under the Outside Storage Allowable Use Alternative, the square footage of the buildings would be reduced, approximately 48 acres of land would remain in agricultural production, and there would be an increase in outside storage areas. The new emissions generated by construction and operation of this alternative would be slightly lower than those produced by the proposed project because of the reduced square footage of the buildings, although overall impacts would remain significant and unavoidable.

This alternative would only partially meet qualitative objectives related to employment opportunities, reducing the commute for regional residents, providing an improved circulation system, and providing public facilities and services, such as stormwater drainage improvements. Additionally, by reducing the size and purpose of the warehouse buildings, and re-purposing parking areas as storage yards, this alternative would not meet the project's quantitative objectives for the amount of employment-generating industrial uses and would be less consistent with the General Plan objectives related to employment growth. As a result, this alternative would be less consistent with the objectives of the General Plan, which focuses on developing employment opportunities and expanding the City's industrial base.

Biological Resources

The project impacts related to biological resources would be less than significant with mitigation (see Section 3.4, Biological Resources). Under the Outside Storage Allowable Use Alternative, the overall square footage of the buildings would be reduced, approximately 48 acres of land would remain in agricultural production, and there would be an increase in outside storage areas. This would protect more of the on-site Prime Farmland and would maintain a buffer between the site and existing residences. The Outside Storage Allowable Use Alternative would reduce impacts to special-status bats or nesting birds because fewer habitats could be disturbed as a result of the reduced square footage of the buildings and preservation of more agricultural land. Overall, this Alternative would have slightly reduced impacts to biological resources than the proposed project, although the avoidance mitigation measures to prevent impacts to birds and bats would still be required under this alternative for the areas that would be developed. Therefore, impacts under this alternative would be less than significant with mitigation.

Cultural Resources

The project impacts related to cultural resources would be less than significant with mitigation (see Section 3.5, Cultural Resources). Under the Outside Storage Allowable Use Alternative, the overall square footage of the buildings would be reduced, approximately 48 acres of land would remain in agricultural production, and there would be an increase in outside storage areas. Because the Outside Storage Allowable Use Alternative would have a reduced building square footage compared to the proposed project, there could be less ground disturbance and fewer impacts on Cultural

Resources, although the outside storage areas would also have the potential for ground disturbance. Therefore, the mitigation measures to prevent impacts to cultural resources from ground disturbance would still be required under this alternative. Impacts under this alternative would be less than significant with mitigation.

Energy

The project's impacts related to energy would be less than significant (see Section 3.6, Energy). Under the Outside Storage Allowable Use Alternative, the overall square footage of the buildings would be reduced, approximately 48 acres of land would remain in Agricultural production, and there would be an increase in outside storage areas. Under this Alternative, there would be a smaller change related to energy consumption during construction and operation, as the warehouse facilities would have a smaller square footage, and the additional outdoor storage would not contribute to a significant increase to energy impacts. Therefore, there would be a less than significant impact related to energy under this alternative.

Geology and Soils

The project impacts related to geology and soils would be less than significant with mitigation (see Section 3.7, Geology and Soils). Under the Outside Storage Allowable Use Alternative, the overall square footage of the buildings would be reduced, approximately 48 acres of land would remain in agricultural production, and there would be an increase in outside storage areas. However, because geological impacts such as seismic hazards are due to the project's location, this Alternative would still require mitigation (incorporation of geotechnical engineering report recommendations) to reduce geological impacts to less than significant. Additionally, this alternative would have a reduced impact on paleontological resources because the development footprint is smaller than the proposed project; however, because this alternative would disturb ground, MM GEO-6 would still be required during construction. Therefore, this alternative would be less than significant with mitigation. With the implementation of mitigation, the Outside Storage Allowable Use Alternative would have a similar level of impacts as the proposed project.

Greenhouse Gas Emissions

The project's impacts related to GHG emissions would be less than significant (see Section 3.8, Greenhouse Gases). Under the Outside Storage Allowable Use Alternative, the overall square footage of the buildings would be reduced, approximately 48 acres of land would remain in agricultural production, and there would be an increase in outside storage areas. Because this alternative would result in a reduced square footage of buildings, there would be smaller construction footprint and fewer operational vehicle trips, and the additional outdoor storage would not contribute to a significant increase to GHG impacts as compared to the proposed project. Thus, this Alternative would have a reduced impact on GHG emissions compared to the project. The level of impacts would be less than significant.

Hazards and Hazardous Material

The project impacts related to hazards and hazardous materials would be less than significant with mitigation (see Section 3.9, Hazards and Hazardous Materials). Under the Outside Storage Allowable

Use Alternative, the overall square footage of the buildings would be reduced, approximately 48 acres of land would remain in agricultural production, and there would be an increase in outside storage areas. Existing buildings would be demolished under this alternative, so the impacts related to potential exposure to lead-based paint or ACM would be the same as the proposed project, and mitigation measures would still be required. Thus, impacts would be less than significant with mitigation.

Hydrology and Water Quality

The project impacts related to hydrology and water quality would be less than significant with mitigation (see Section 3.10, Hydrology and Water Quality). Under the Outside Storage Allowable Use Alternative, the overall square footage of the buildings would be reduced, approximately 48 acres of land would remain in agricultural production, and there would be an increase in outside storage areas. Because of the reduced impervious hardscape due to preservation of approximately 48 acres of existing agricultural lands, impacts related to hydrology, stormwater runoff and drainage, water quality, groundwater recharge and depletion, or flooding would be reduced. Thus, there would be fewer hydrology and water quality impacts or improvements under this alternative. However, a Storm Water Pollution Prevention Plan (SWPPP) and Storm Water Management Plan would still be required pursuant to MM HYD-1 and MM HYD-2, and a drainage plan would be required pursuant to MM HYD-3. Therefore, impacts related to hydrology and water quality would be less than significant with mitigation.

Land Use and Planning

The project impacts related to land use and planning would be less than significant, and the project would meet many of the objectives of the General Plan (see Section 3.11, Land Use). Under the Outside Storage Allowable Use Alternative, the overall square footage of the buildings would be reduced, approximately 48 acres of land would remain in agricultural production, and there would be an increase in outside storage areas. This alternative would result in fewer employees. Therefore, as compared with the proposed project, this alternative would not be as consistent with the objectives of the General Plan, which focuses on developing employment opportunities and expanding the City's industrial base. Because of the reduced building square footage, the Outside Storage Allowable Use Alternative would generate fewer employment opportunities and would be less consistent with General Plan Goals and Policies that promote the development of employment opportunities and the expansion of the City's industrial base.

This alternative would only partially meet qualitative objectives related to employment opportunities, reducing the commute for regional residents, providing an improved circulation system, and providing public facilities and services, such as stormwater drainage improvements. Additionally, by reducing the size and purpose of the warehouse buildings, and re-purposing parking areas as storage yards, this alternative would not meet the proposed project's quantitative objectives for the amount of employment-generating industrial uses and would be less consistent with the General Plan objectives related to employment growth. Impacts related to land use and planning would be less than significant.

Noise

The project would result in a less than significant impact with mitigation for temporary increase in ambient noise levels during construction and less than significant impacts for noise land use compatibility, groundborne vibration, and airport noise (see Section 3.12, Noise). Under the Outside Storage Allowable Use Alternative, the overall square footage of the buildings would be reduced, approximately 48 acres of land would remain in agricultural production, and there would be an increase in outside storage areas. Under this alternative, there would be a smaller change in groundborne vibration and noise sources (including from traffic-related noise) during project operations as a result of the fewer number of employees, which would result in fewer daily vehicle trips when compared to the proposed project. Noise and vibration levels during the construction phase would likely be the same as the project. However, because this alternative would maintain a buffer between sensitive receptors because of the preservation of more agricultural lands, noise impacts on those sensitive receptors would be reduced. Overall, there would be reduced noise impacts under this alternative when compared with the proposed project. However, because the proposed project would generate noise and vibration, mitigation would still be required. Therefore, impacts would be less than significant with mitigation.

Public Services

The project impacts to public services would be less than significant (see Section 3.13, Public Services). Under the Outside Storage Allowable Use Alternative, the overall square footage of the buildings would be reduced, approximately 48 acres of land would remain in agricultural production, and there would be an increase in outside storage areas. Because this alternative would result in fewer employees, there would be a corresponding reduced impact related to fire, police, school, and library services, which would result in fewer demands for these services when compared to the proposed project. Impacts would be less than significant.

Transportation

The project would result in significant and unavoidable impacts related to VMT (see Section 3.14 Transportation). The proposed project would implement mitigation, which would require the applicant to prepare a project-specific TDM Program in consultation with the City to reduce project-generated VMT. However, with mitigation, impacts would be reduced to the extent feasible, but would remain significant and unavoidable at the project level and under cumulative conditions. The project's impacts related to roadway safety hazards, pedestrian facilities, and bicycle facilities would be reduced to less than significant levels with mitigation incorporated. The project's impacts related to emergency access and public transit would be less than significant and would not require mitigation.

Under the Outside Storage Allowable Use Alternative, the overall square footage of the buildings would be reduced, approximately 48 acres of land would remain in agricultural production, and there would be an increase in outside storage areas.

Similar to the proposed project, the Outside Storage Allowable Use Alternative would generate VMT. The significant and unavoidable VMT impact would be similar to the proposed project because the average one-way trip length for automobile trips generated by this alternative would be similar to

the trip length for the proposed project. Similar to the proposed project, this alternative would be required to implement mitigation to reduce VMT, including implementation of TDM strategies. Similar to the proposed project, impacts related to VMT would be reduced to the extent feasible with the incorporation of mitigation; however, impacts would remain significant and unavoidable at the project level and under cumulative conditions under this alternative.

Similar to the proposed project, this alternative would result in potential impacts related to emergency access, roadway safety hazards, pedestrian facilities, and bicycle facilities and would require similar mitigation to reduce impacts to less than significant. Similar to the proposed project, this alternative would result in less than significant impacts to public transit.

In conclusion, the Outside Storage Allowable Use Alternative would result in similar impacts related to transportation as compared to the project, and the VMT impacts would be significant and unavoidable, reduced to the extent feasible with mitigation. This alternative would only partially meet qualitative objectives related to employment opportunities, reducing the commute for regional residents, providing an improved circulation system, and providing public facilities and services, such as stormwater drainage improvements. Additionally, by reducing the size and purpose of the warehouse buildings, and re-purposing parking areas as storage yards, this alternative would not meet the project's quantitative objectives for the amount of employment-generating industrial uses and would be less consistent with the General Plan objectives related to employment growth.

Tribal Cultural Resources

The project's impacts related to tribal cultural resources would be less than significant with mitigation incorporated (see Section 3.15, Tribal Cultural Resources). Under the Outside Storage Allowable Use Alternative, the overall square footage of the buildings would be reduced, approximately 48 acres of land would remain in agricultural production, and there would be an increase in outside storage areas. The reduced square footage and increased preservation of agricultural lands would lead to reduced impacts on tribal cultural resources because less ground disturbance would occur. However, because ground disturbance would still occur under this alternative, mitigation would be required. There would be reduced tribal cultural resources impacts under this alternative. However, impacts would be less than significant with mitigation.

Utilities and Service Systems

The project's impacts related to utility and service systems would be less than significant with mitigation (see Section 3.16, Utility and Service Systems). Under the Outside Storage Allowable Use Alternative, the overall square footage of the buildings would be reduced, approximately 48 acres of land would remain in agricultural production, and there would be an increase in outside storage areas. Because of the reduced square footage of the buildings and fewer employees, there would be a correspondingly reduced demand for water supply, wastewater, and solid waste collection service systems. Thus, there would be a reduced impact related to utilities and service systems under this alternative. However, similar to the proposed project, this alternative would still require adherence to performance standards and payment of fees pursuant to MM UTIL-1a, submittal of Final Engineering Plans pursuant to MM UTIL-1b and MM UTIL-1c, and payment of wastewater

infrastructure fees pursuant to MM UTIL-3. Therefore, similar to the proposed project, impacts would be less than significant with mitigation.

Wildfire

There are no project impacts related to wildfire (See Section 3.17, Wildfire). Under the Outside Storage Allowable Use Alternative, the overall square footage of the buildings would be reduced, approximately 48 acres of land would remain in agricultural production, and there would be an increase in outside storage areas. The project is not located in a Fire Hazard Severity Zone nor is it located in an SRA or a Very High Fire Hazard Severity Zone in a local, State, or federal responsibility area. The Outside Storage Allowable Use Alternative also would not have wildfire risks.

6.7.2 - Conclusion

The Outside Storage Allowable Use Alternative would have a lower level of impacts for aesthetics, agriculture and forest resources, air quality, biological resources, cultural resources, energy, GHG emissions, hydrology and water quality, noise, public services, tribal cultural resources, utilities and service systems, and wildfire. Overall, the impacts would be reduced due to a smaller square footage of the buildings and the reduced number of employees. However, the project's mitigation measures would still be required under this alternative. Furthermore, this alternative would not meet quantitative objectives for the amount of employment-generating industrial uses and would therefore not meet the project objectives related to employment opportunities.

6.8 - Alternative 3—Agricultural Protection Alternative

Under the Agricultural Protection Alternative, the project site would be developed in such a way to protect some of the on-site Prime Farmland by reducing the overall footprint of the developed areas while maintaining a buffer between existing residences along California Avenue. The northern half (approximately 11 acres) of the Zuriakat Parcel would remain in agricultural production.

6.8.1 - Impact Analysis

Aesthetics

Under the Agricultural Protection Alternative, the overall footprint of the developed areas would be reduced and approximately 11 acres of land would remain in agricultural production along California Avenue within the Zuriakat Parcel. This would protect some of the on-site Prime Farmland and maintain a buffer between the site and existing residences along California Avenue. There would still be changes in visual character, views, and nighttime lighting, because of the construction of warehouse buildings. However, the preservation of Agricultural production along California Avenue would create a visual buffer. Thus, there would be a less than significant impact.

Similarly, the project impacts related to aesthetics would be less than significant (see Section 3.1, Aesthetics). The Agricultural Protection Alternative would have a reduced level of aesthetics and light and glare compared to the project because the preserved agricultural production along California Avenue would create a visual buffer. The Agricultural Protection Alternative would have a less than significant impact.

Agriculture and Forestry Resources

The project impacts related to Agriculture would be significant and unavoidable (See Section 3.2, Agriculture and Forestry Resources). The project would create no impacts with respect to forestry resources.

Under the Agricultural Protection Alternative, the overall footprint of the developed areas would be reduced and approximately 11 acres of land would remain in agricultural production along California Avenue within the Zuriakat Parcel. This would protect some of the on-site Prime Farmland and would also maintain a buffer between the site existing residences along California Avenue. While the Agricultural Protection Alternative would convert Farmland pursuant to the FMMP to nonagricultural use, some Prime Farmland would be preserved. This alternative would not conflict with zoning or a Williamson Act contract. No forest land would be lost or converted.

While the Agricultural Protection Alternative would preserve some Prime Farmland, it would still convert Prime Farmland into industrial uses, and therefore, impacts would also be significant and unavoidable. However, because it would preserve some Farmland, this alternative would be more consistent with the General Plan's goal to preserve and protect significant agricultural resources. This alternative would meet qualitative objectives related to employment opportunities, reducing the commute for regional residents, providing an efficient circulation system, and providing public facilities and services. However, because the alternative would result in the construction of a smaller facility, it would not meet quantitative objectives for the amount of employment-generating industrial uses. Thus, there would be significant and unavoidable agricultural impacts under this alternative.

Air Quality

The project impacts related to air quality would be significant and unavoidable for criteria pollutant and toxic air contaminant emissions generation (See Section 3.3, Air Quality). Under the Agricultural Protection Alternative, the overall footprint of the developed areas would be reduced and approximately 11 acres of land would remain in agricultural production along California Avenue, within the Zuriakat Parcel. The new emissions generated by construction and operation of this alternative would be slightly lower than those produced by the project because of the reduced size of the warehouse buildings, although overall impacts would remain significant and unavoidable.

This alternative would meet qualitative objectives related to employment opportunities, reducing the commute for regional residents, providing an efficient circulation system, and providing public facilities and services. However, because the alternative would result in the construction of a smaller facility, it would not meet the project's quantitative objectives for the amount of employment-generating industrial uses, and would be less consistent with the objectives of the General Plan, which focuses on developing employment opportunities and expanding the City's industrial base.

Biological Resources

The project impacts related to biological resources would be less than significant with mitigation (see Section 3.4, Biological Resources). Under the Agricultural Protection Alternative, the overall footprint of the developed areas would be reduced and approximately 11 acres of land would

remain in Agricultural production along California Avenue within the Zuriakat Parcel. This would protect some of the on-site Prime Farmland and would maintain a buffer between the site and existing residences along California Avenue. The Agricultural Protection Alternative would reduce impacts to special-status bats or nesting birds because fewer habitats could be disturbed as a result of the reduced square footage of the proposed buildings and preservation of some agricultural land. Overall, this Alternative would have slightly reduced impacts to biological resources than the proposed project, although mitigation to prevent impacts to birds, kit fox, and bats would still be required under this alternative. Therefore, impacts under this alternative would be less than significant with mitigation.

Cultural Resources

The project impacts related to cultural resources would be less than significant with mitigation (see Section 3.5, Cultural Resources). Under the Agricultural Protection Alternative, the overall footprint of the developed areas would be reduced and approximately 11 acres of land would remain in agricultural production along California Avenue within the Zuriakat Parcel. Because the Agricultural Protection Alternative would have a reduced building square footage compared to the proposed project, there could be less ground disturbance and fewer impacts on Cultural Resources. However, because ground will be disturbed under this alternative, the mitigation measures to prevent impacts to cultural resources from ground disturbance would still be required under this alternative. Therefore, impacts under this alternative would be less than significant with mitigation.

Energy

The project impacts related to energy would be less than significant (see Section 3.6, Energy). Under the Agricultural Protection Alternative, the overall footprint of the developed areas would be reduced and approximately 11 acres of land would remain in agricultural production along California Avenue within the Zuriakat Parcel. Under this Alternative, there would be a smaller change related to energy consumption during construction and operation, as the warehouse facilities would be smaller. There would be a less than significant impact related to energy under this alternative.

Geology and Soils

The project impacts related to geology and soils would be less than significant with mitigation (see Section 3.7, Geology and Soils). Under the Agricultural Protection Alternative, the overall footprint of the developed areas would be reduced and approximately 11 acres of land would remain in Agricultural production along California Avenue within the Zuriakat Parcel. However, this Alternative would still require mitigation (incorporation of geotechnical engineering report recommendations) to reduce geological hazards impacts to less than significant. With the implementation of this mitigation measure, the Agricultural Protection Alternative would have a similar level of impacts as the proposed project.

This alternative would have a reduced impact on paleontological resources because the development footprint is smaller than the proposed project. However, because this alternative would disturb ground during construction, MM GEO-6 would be required. Therefore, impacts would be less than significant with mitigation.

Greenhouse Gas Emissions

The project impacts related to Greenhouse Gases would be less than significant (see Section 3.8, Greenhouse Gases). Under the Agricultural Protection Alternative, the overall footprint of the developed areas would be reduced and approximately 11 acres of land would remain in Agricultural production along California Avenue within the Zuriakat Parcel. Because this would be a smaller facility, GHG emission generation would be reduced as there would be smaller construction footprint and fewer operational vehicle trips. Thus, this Alternative would have a reduced impact on GHG emissions compared to the project. The level of impacts would be less than significant.

Hazards and Hazardous Material

The project impacts related to hazards and hazardous materials would be less than significant with mitigation (see Section 3.9, Hazards and Hazardous Materials). Under the Agricultural Protection Alternative, the overall footprint of the developed areas would be reduced and approximately 11 acres of land would remain in Agricultural production along California Avenue within the Zuriakat Parcel. All on-site buildings would be demolished under this alternative, so the impacts related to potential exposure to lead-based paint or ACM would be the same as the project, and mitigation would still be required under this alternative. Therefore, impacts would be less than significant with mitigation.

Hydrology and Water Quality

The project impacts related to hydrology and water quality would be less than significant with mitigation (see Section 3.10, Hydrology and Water Quality). Under the Agricultural Protection Alternative, the overall footprint of the developed areas would be reduced and approximately 11 acres of land would remain in Agricultural production along California Avenue within the Zuriakat Parcel. Because of the reduced development footprint and less impervious hardscape, impacts related to hydrology, stormwater runoff and drainage, water quality, groundwater recharge and depletion, or flooding would be reduced. Thus, there would be fewer hydrology and water quality impacts or improvements under this alternative. However, a SWPPP and Storm Water Management Plan would still be required pursuant to MM HYD-1 and MM HYD-2, and a drainage plan would be required pursuant to MM HYD-3. Therefore, impacts related to hydrology and water quality would be less than significant with mitigation.

Land Use and Planning

The project impacts related to land use and planning would be less than significant, and the project would meet many of the objectives of the General Plan (see Section 3.11, Land Use). Under the Agricultural Protection Alternative, the overall footprint of the developed areas would be reduced and approximately 11 acres of land would remain in Agricultural production along California Avenue within the Zuriakat Parcel. This alternative would not be as consistent as the proposed project with the objectives of the General Plan, which focus on developing employment opportunities and expanding the City's industrial base.

Because of the reduced size of the Agricultural Protection Alternative, it would generate fewer employment opportunities and would be less consistent with General Plan Goals and Policies that

promote the development of employment opportunities and the expansion of the City's industrial base. This alternative would meet qualitative objectives related to employment opportunities, reducing the commute for regional residents, providing an efficient circulation system, and providing public facilities and services, such as stormwater drainage improvements. However, because the alternative would result in the construction of a smaller facility, it would not meet the project's quantitative objectives for the amount of employment-generating industrial uses, and would be less consistent with the City's General Plan objectives related to employment growth and expanding the City's industrial base. Impacts related to land use and planning would be less than significant.

Noise

The project would result in a less than significant impact with mitigation for temporary increase in ambient noise levels during construction and less than significant impacts for noise land use compatibility, groundborne vibration, and airport noise (see Section 3.12, Noise). Under the Agricultural Protection Alternative, the overall footprint of the developed areas would be reduced and approximately 11 acres of land would remain in Agricultural production along California Avenue within the Zuriakat Parcel. Under the Agricultural Protection Alternative, there would be a smaller change in groundborne vibration and noise sources (including from traffic-related noise), as a result of the reduced project footprint and fewer number of employees would result in fewer daily vehicle trips when compared to the proposed project. Noise and vibration levels in the project vicinity would be reduced. Additionally, this alternative would maintain a buffer between sensitive receptors along California Avenue and the site, further reducing noise impacts on those sensitive receptors. Overall, there would be fewer noise impacts under this alternative when compared with the proposed project. However, because the proposed project would generate noise and vibration, mitigation would still be required. Therefore, impacts would be less than significant with mitigation.

Public Services

The project impacts to public services would be less than significant (see Section 3.13, Public Services). Under the Agricultural Protection Alternative, the overall footprint of the developed areas would be reduced and approximately 11 acres of land would remain in Agricultural production along California Avenue within the Zuriakat Parcel. There would be a corresponding reduced impact related to fire, police, school, or library services, as the smaller facility would result in fewer employees and, therefore, fewer demands for these services when compared to the proposed project. Impacts would be less than significant.

Transportation

The proposed project would result in significant and unavoidable impacts related to the project's effect on VMT (see Section 3.14 Transportation). The proposed project would implement mitigation, which would require the applicant to prepare a project-specific TDM Program in consultation with the City to reduce project-generated VMT. However, with incorporation of mitigation, impacts would be reduced to the extent feasible, but would remain significant and unavoidable at the project level and under cumulative conditions. The proposed project's impacts related to roadway safety hazards, pedestrian facilities, and bicycle facilities would be reduced to less than significant levels with

mitigation incorporated. The proposed project's impacts related to emergency access and public transit would be less than significant without mitigation.

Under the Agricultural Protection Alternative, the overall footprint of the developed areas would be reduced and approximately 11 acres of land would remain in Agricultural production along California Avenue within the Zuriakat Parcel.

Similar to the proposed project, the Agricultural Protection Alternative would generate additional VMT. The significant and unavoidable VMT impact would be similar to the proposed project because the average one-way trip length for automobile trips generated by the Agricultural Protection Alternative would be similar to the trip length for the proposed project. Similar to the proposed project, this alternative would be required to implement mitigation to reduce VMT, including implementation of TDM strategies. Similar to the proposed project, impacts related to VMT would be reduced to the extent feasible with the incorporation of mitigation; but impacts would remain significant and unavoidable at the project level and under cumulative conditions under this alternative.

Similar to the proposed project, the Agricultural Protection Alternative would result in potential impacts related to emergency access, roadway safety hazards, pedestrian facilities, and bicycle facilities and would require similar mitigation to reduce impacts to less than significant. The Agricultural Protection Alternative would result in less than significant impacts to public transit without mitigation.

In conclusion, the Agricultural Protection Alternative would result in similar impacts related to transportation as compared to the proposed project, and the VMT impact would be significant and unavoidable, reduced to the extent feasible with mitigation. This alternative would meet qualitative objectives related to employment opportunities, reducing the commute for regional residents, providing an efficient circulation system, and providing public facilities and services, such as stormwater drainage improvements. However, because the alternative would result in the construction of a smaller facility, it would not meet quantitative objectives for the amount of employment-generating industrial uses.

Tribal Cultural Resources

The project impacts related to tribal cultural resources would be less than significant with mitigation incorporated (see Section 3.15, Tribal Cultural Resources). Under the Agricultural Protection Alternative, the overall footprint of the developed areas would be reduced and approximately 11 acres of land would remain in Agricultural production along California Avenue within the Zuriakat Parcel. The reduced development footprint would lead to reduced impacts on tribal cultural resources because less ground disturbance would occur. However, because ground disturbance would still occur under this alternative, mitigation would be required. Thus, there would be reduced tribal cultural resources impacts under this alternative. Impacts would be less than significant with mitigation.

Utilities and Service Systems

The project impacts to utility and service systems would be less than significant with mitigation (see Section 3.16, Utility and Service Systems). Under the Agricultural Protection Alternative, the overall footprint of the developed areas would be reduced and approximately 11 acres of land would remain in Agricultural production along California Avenue within the Zuriakat Parcel. Because of the reduced development footprint, there would be a correspondingly reduced change related to water supply, wastewater, and solid waste collection service systems because there would less demand for these utilities. Thus, there would be a reduced impact related to utility and service systems under this alternative. However, this alternative would still require adherence to performance standards and payment of fees pursuant to MM UTIL-1a, submittal of Final Engineering Plans pursuant to MM UTIL-1b and MM UTIL-1c, and payment of wastewater infrastructure fees pursuant to MM UTIL-3. Therefore, impacts would be less than significant with mitigation.

Wildfire

The proposed project would have no impacts related to wildfire (See Section 3.17, Wildfire). Under the Agricultural Protection Alternative, the overall footprint of the developed areas would be reduced and approximately 11 acres of land would remain in Agricultural production along California Avenue within the Zuriakat Parcel.

The project is not located in a “Fire Hazard Severity Zone” nor is it located in an SRA or a “Very High Fire Hazard Severity Zone” in a local, State, or federal responsibility area. Therefore, there would be no impacts related to wildfire.

6.8.2 - Conclusion

The Agricultural Protection Alternative would reduce to a certain extent those impacts related to ground disturbance by reducing the overall footprint of developed areas, preserving some of the site’s Prime Farmland. Additionally, wildfire impacts would be reduced under this alternative. However, while it would result in some degree of reduction, it would not eliminate the significant and unavoidable impact with respect to agricultural resources, nor any of the other significant and unavoidable impacts. Furthermore, the mitigation measures would still be required. This alternative would meet certain qualitative objectives related to employment opportunities, reducing the commute for regional residents, providing an efficient circulation system, and providing public facilities and services, such as stormwater drainage improvements but not to the degree of the proposed project. However, by reducing the size of the warehouse and distribution buildings, this alternative would not meet most of the project’s quantitative objectives for the amount of employment-generating industrial uses, and would be less consistent with the City’s General Plan objectives related to employment growth and expanding the City’s industrial base.

6.9 - Environmentally Superior Alternative

The qualitative environmental effects of each alternative in relation to the proposed project are summarized in Table 6-1 below. As shown in Table 6-1, the No Project Alternative is the environmentally superior alternative, as future development within the planning area under the current General Plan and Zoning would result in fewer and less severe impacts.

CEQA Guidelines Section 15126(e)(2) requires identification of an environmentally superior alternative. If the No Project Alternative is environmentally superior, CEQA requires selection of the "environmentally superior alternative other than the No Project Alternative" from among the proposed project and the alternatives evaluated.

Of the two remaining alternatives, the Outside Storage Allowable Use Alternative (Alternative 2) has the potential to yield the greatest reductions in the severity of the proposed significant and unavoidable impacts because it would preserve approximately 48 acres of the existing agricultural operations including Prime Farmland. However, this alternative would not achieve the project objective of developing a maximum of 3,352,210 square feet of employment-generating industrial uses. It also would not be as effective at achieving the employment-generating opportunity objective as it would not provide as many local and regional employment opportunities take advantage of the proposed project area's high level of accessibility, allow for the expansion of the City's economic base, help improve the jobs/housing balance, and reduce the commute for regional residents.

Table 6-1: Summary of Alternatives' Impacts

Impact	Proposed Project	Alternative 1— No Project Alternative	Alternative 2— Alternate Building Layout of the Tracy Alliance Parcel Alternative	Alternative 3– Agricultural Protection Alternative
Aesthetics	LTS	Less Impact, LTS	Less Impact, LTS	Less Impact, LTS
Agriculture and Forestry Resources	SU	Less Impact, SU	Less Impact, SU	Less Impact, SU
Air Quality	SU	Less Impact, SU	Less Impact, SU	Less Impact, SU
Biological Resources	LTSM	Less Impact, LTSM	Less Impact, LTSM	Less Impact, LTSM
Cultural Resources	LTSM	Less Impact, LTSM	Less Impact, LTSM	Less Impact, LTSM
Energy	LTS	Less Impact, LTS	Less Impact, LTS	Less Impact, LTS
Geology and Soils	LTSM	Less Impact, LTSM	Similar Impact, LTSM	Similar Impact, LTSM
Greenhouse Gas Emissions	LTS	Less Impact, LTS	Less Impact, LTS	Less Impact, LTS
Hazards and Hazardous Materials	LTSM	Less Impact, LTSM	Similar Impact, LTSM	Similar Impact, LTSM
Hydrology and Water Quality	LTSM	Less Impact, LTSM	Less Impact, LTSM	Less Impact, LTSM
Land Use and Planning	LTS	Less Impact, LTS	Similar Impact, LTS	Similar Impact, LTS
Noise	LTSM	Less Impact, LTSM	Less Impact, LTSM	Less Impact, LTSM
Public Services	LTS	Less Impact, LTS	Less Impact, LTS	Less Impact, LTS
Transportation	SU	Less Impact, SU	Similar Impact, SU	Similar Impact, SU
Tribal Cultural Resources	LTSM	Less Impact, LTSM	Less Impact, LTSM	Less Impact, LTSM
Utilities and Service Systems	LTSM	Less Impact, LTSM	Less Impact, LTSM	Less Impact, LTSM
Wildfire	NI	Less Impact, NI	Similar Impact, NI	Similar Impact, NI

Impact	Proposed Project	Alternative 1— No Project Alternative	Alternative 2— Alternate Building Layout of the Tracy Alliance Parcel Alternative	Alternative 3– Agricultural Protection Alternative
Notes: NI = No Impact. LTS = Less Than Significant Impact. LTSM = Less Than Significant Impact With Mitigation incorporated. SU = Significant and Unavoidable Impact. Source: Compiled by FirstCarbon Solutions (FCS) 2022.				

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SECTION 7: PERSONS AND ORGANIZATIONS CONSULTED/LIST OF PREPARERS

7.1 - Persons and Organizations Consulted

7.1.1 - CEQA Lead Agency

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Senior Planner..... Victoria Lombardo

Engineering Department

City Engineer.....Robert Armijo, PE
Traffic Engineer ..... Anju Pillai, PE

Fire Department

Fire Marshal ..... Chief Tim Spears
Executive Assistant..... Jackie Heefner

7.1.2 - Other Agency Support

State Agencies

California Department of Toxic Substances Control

Project Manager..... Gavin McCreary

Native American Heritage Commission

Cultural Resources Analyst ..... Nancy Gonzalez-Lopez

California Department of Conservation

Conservation Program Support Supervisor .....Monique Wilber

Local Agencies

Central Valley Regional Water Quality Control Board

Water Resource Control Engineer.....Nicholas White

San Joaquin Council of Governments

Associate Habitat Planner.....Laurel Boyd

San Joaquin Valley Air Pollution Control District

Air Quality Specialist..... Michael Corder

Delta Stewardship Council

Deputy Executive Officer ..... Jeff Henderson

7.2 - Project Sponsor and Sponsor Consultants

7.2.1 - Tracy Alliance Group, Suvik Farms, LLC, and Zuriakat

Vice President ..... Trevor Smith
Chief Executive Officer ..... Mike Souza

7.2.2 - Terracon (Geotechnical Investigation, Phase I Environmental Site Assessment, Limited Site Investigation)

Principal ..... Garret Hubbart
Senior Associate ..... Patrick Craig Dell
Senior Geologist ..... Brian Carey, PG
Environmental Department Manager ..... Sam Noaman
Field Environmental Specialist ..... Tamara Woods
Senior Geologist ..... Tony Mikacich
Professional Geologist ..... Scott Gable, PG

7.3 - City of Tracy Consultants

7.3.1 - FirstCarbon Solutions (Environmental Impact Report)

Project Director ..... Mary Bean
Project Manager ..... Tsui Li, MURP
Senior Reviewer ..... Liza Baskir
Senior Cultural Resources Specialist ..... Dana DePietro, PhD, RPA
Senior Noise Specialist ..... Phil Ault, MS, LEED AP
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Consulting Paleontologist ..... Kenneth L. Finger PhD

Kimley-Horn (Transportation Impact Assessment)

Civil Engineer, Vice President.....Frederik Venter, PE
Planner, Associate .....Michael Schmitt. AICP
Civil Analyst..... Colin Ogilvie, EIT
Civil Analyst.....Anthony Nuti, EIT

EAS (Phase I Environmental Site Assessment)

CEO/President..... Gavin Leaver
Project Supervisor ..... Jess Randle

7.3.3 - Wood Rodgers (Flood Protection Technical Memorandum)

Associate.....Harvey Oslick, PE, CFM, CPSWQ, EnvSP

7.3.4 - West Yost Associates (Water Supply Assessment)

Project Manager..... Amy Kwong, PE
Project Manager.....Elizabeth Drayer, PE

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